

The logo graphic consists of several overlapping, slightly offset rectangular outlines that create a sense of depth and movement, resembling a stylized 'M' or a series of steps.

MADERA

**Mission for Relief and Development of
Rural Economies**

ANNUAL REPORT 1993



MADERA
Mission d'Aide au Développement des Economies Rurales
Mission for Relief and Development of Rural Economies

ANNUAL REPORT 1993

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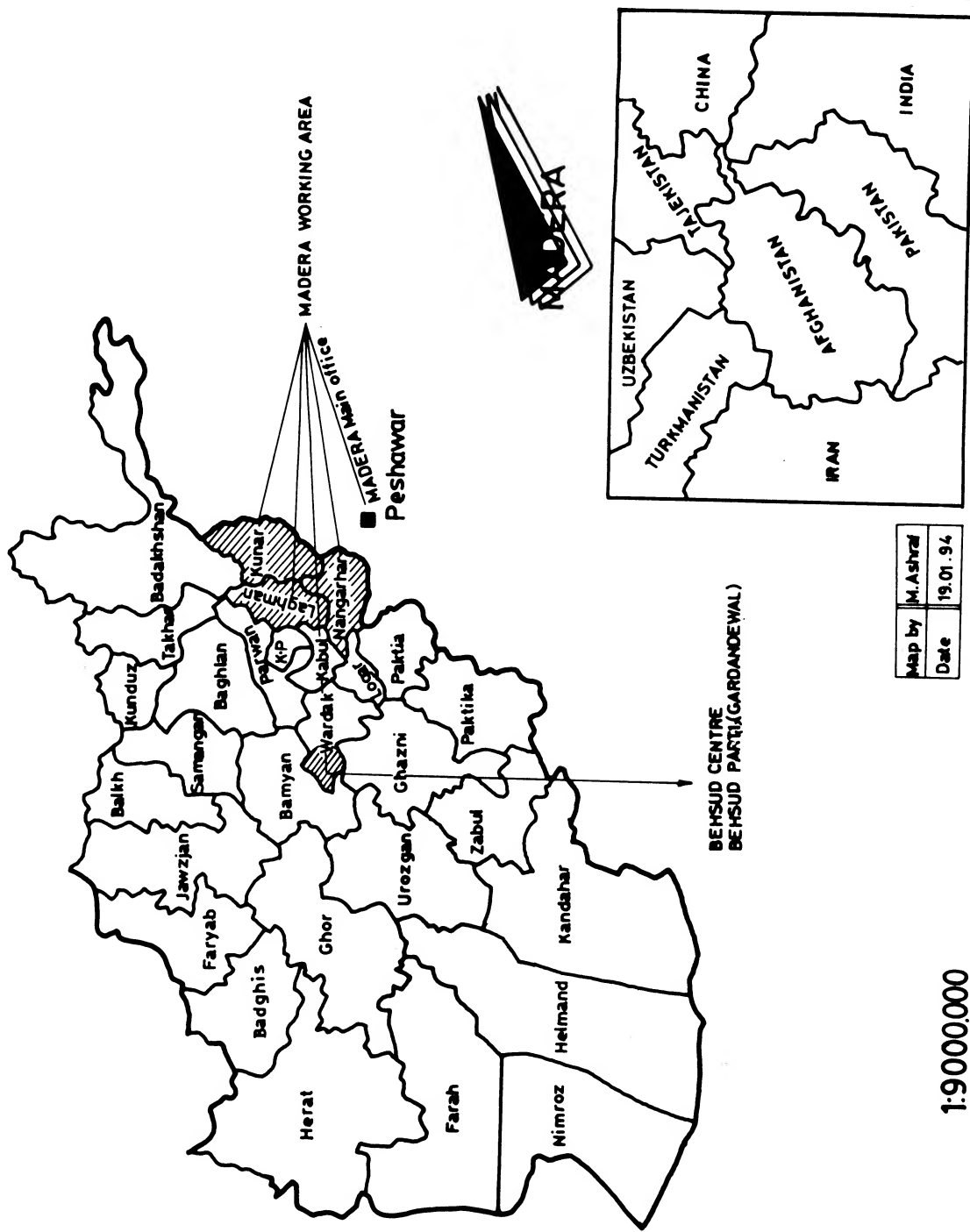
Cover page photograph
District of Alingar - Province of Laghman



**Mission d'Aide au Développement des
Economies Rurales**

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Map by	M. Ashraf
Date	19.01.94

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AIMS AND OBJECTIVES OF THE MADERA ACTION

MADERA is an association governed by French law. The statutes of the association specify the following aims:

- ☉ To contribute to the maintenance and development of rural economies in Southern countries, by assisting the populations to improve the use of their resources.
- ☉ To promote dialogue and co-operation between the populations of the South and North.

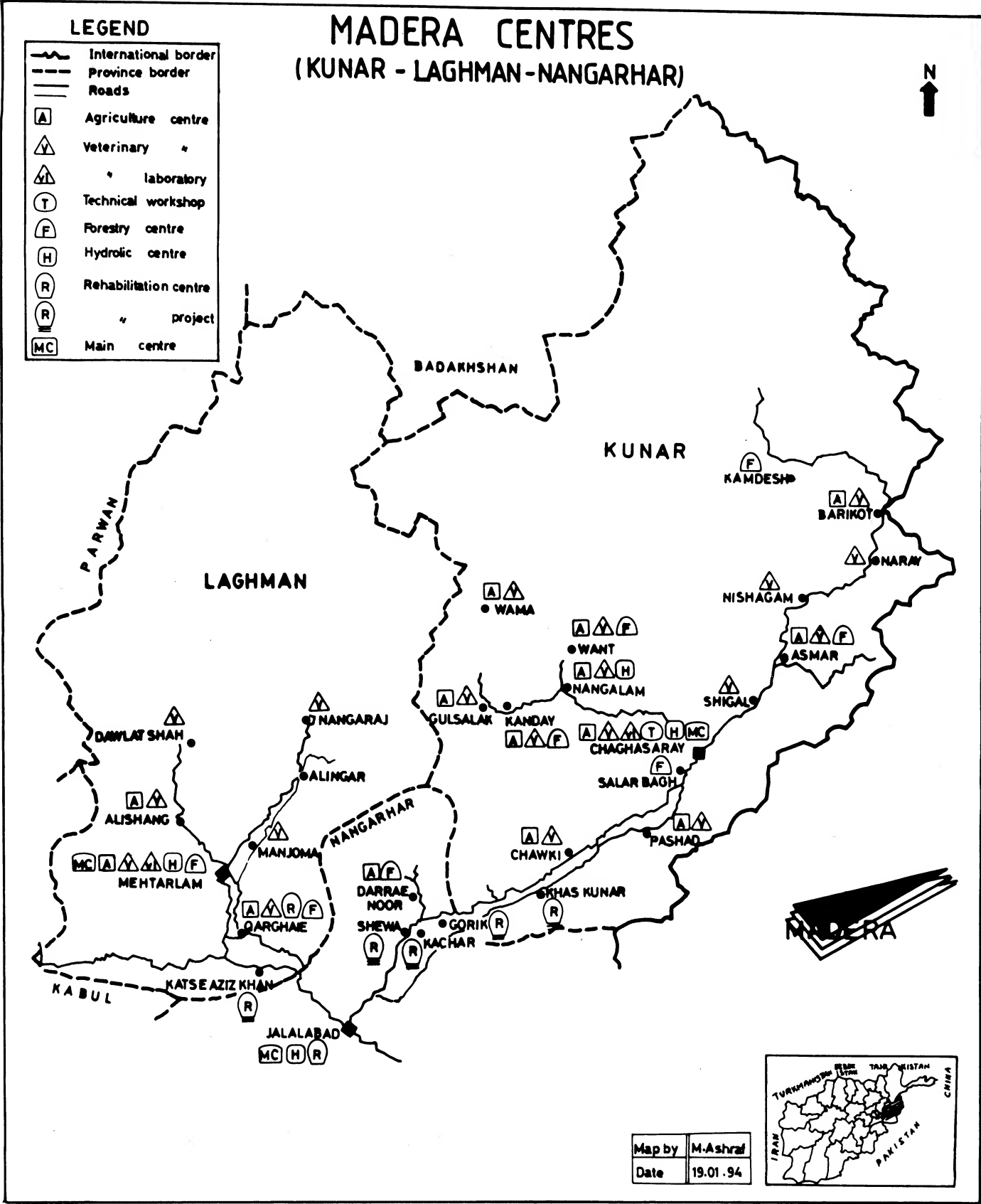
In Afghanistan, MADERA has two principal objectives:

- ☉ To support those populations who did not leave during the war by assisting in the recultivation of land, protection of animals, repair of irrigation canals and by means of forestry protection.
- ☉ Through these same actions, to facilitate the reinsertion of refugees into their valleys of origin, by increasing sustainable agricultural and animal production in the zone of the project.



Construction of Mandagal canal - Nuristan

AFGHANISTAN



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GENERAL PRESENTATION OF PROGRAMME

CONTEXT

In spite of the continuing uncertain political situation, the agro-pastoral programme implemented by MADERA in the south-eastern provinces of Afghanistan (Laghman, Kunar, Nuristan - which gained the status of province in 1993 - and Nangarhar) and in Hazaradjat (Behsud) was able to continue throughout 1993 without experiencing any significant problems. The 35 agro-veterinary centres and the 8 forestry centres set up by MADERA in the preceding years were able to operate without interruption.

The continuation of fighting in Kabul in 1993 has not led to any major upset in the regions where MADERA is operating.

MADERA is heavily dependent on the main road connecting Pakistan to Jalalabad via the Khyber Pass, for its operations in Laghman, Kunar, Nuristan and Nangarhar. Part of the input (seed, gabion wire, veterinary goods and vaccines) and agricultural material unavailable on the Afghan market are purchased in Pakistan. The climate of insecurity provoked by the murder of four United Nations' employees in February 1993 on the Torkham - Jalalabad road disturbed the programme's logistics during several weeks. Difficulties in logistics increased in December 1993 when Pakistani authorities made permits obligatory for goods sent to Afghanistan by international organisations. Continued fighting in Kabul also delayed the implementation of the programme in Hazaradjat, by preventing the possibility of direct supply for this programme from the Afghan capital.

In September 1993, MADERA proceeded with its official registration with the Afghan government by signing a protocol agreement with the Ministry of Foreign Affairs for the Islamic State of Afghanistan. MADERA has not, however, opened an office in Kabul, estimating that security conditions were not satisfactory. Representatives from the Ministry of Agriculture visited the MADERA programme in Kunar in the spring of 1993, and showed great interest in the forestry component. MADERA has, moreover, maintained regular contact with the provincial authorities of Kunar, Laghman, Nuristan, Nangarhar and Hazaradjat.

After the immense surge of refugees, returning in 1992 as a result of the fall of the Najibullah government, this movement slowed down enormously in 1993. According to the sources of the United Nations High Commission for Refugees, only 6 200 people returned to Kunar, 1 500 to Laghman and 12 000 to Nangarhar. At the end of 1993, 1 400 000 Afghan refugees were still in Pakistan.

The period of disturbance still experienced by Afghanistan curbs possibilities for bilateral and multilateral international aid. In addition, the role of NGOs remains central in aid operations for Afghanistan. MADERA is an active member of ACBAR (Agency Coordinating Body for Afghan Relief) which provides a forum for discussion and reflection between NGOs, both on sectoral and geographical levels.

HISTORY

Agro-pastoral action undertaken by the BIA (Bureau International Afghanistan) started in spring 1985 in the province of Kunar and spread to the Weygal valley (Nuristan) during the following two years. The agro-pastoral programme in the province of Laghman started in spring 1988 in the Alingar valley and spread to the Alichang valley in 1990.

A direct product of the BIA, MADERA was founded in 1988 and extended the project to the entire Kunar valley in the autumn of 1988, after the withdrawal of government forces to Jalalabad, leaving the province in the exclusive control of the Mujaheddin. In 1990, MADERA extended its activities to the Pech valley.

1991 was particularly a year of consolidation of the network of MADERA centres and strengthening of connections with the local communities prior to launching an important programme in rural rehabilitation in 1992, which continued in 1993 and which was essentially supported by the European Union.

The action of MADERA is within a two-pronged perspective:

- To support those populations who did not leave during the war by assisting in the recultivation of land, protection of animals, repair of irrigation canals and by means of forestry protection.
- Through these same actions, to facilitate the reinsertion of refugees in their valleys of origin, by increasing sustainable agricultural and animal production in the zone of the project. An investigation carried out by ACBAR, and completed in March, shows that, between 1989 and 1993, MADERA has supplied 57% of improved seed distributed in Kunar and 61% of fertilisers.

The action of MADERA covers nearly the entire Kunar province and half of Laghman province, that is a population pool of 200 000 people. This population is divided into three major ethnical groups : the Pachtoun majority in Kunar and Laghman, the Nuristanis in the Weygal, Kamdesh and Wama valleys and the Pachaï living on both sides of the Kunar-Laghman border.

In Hazaradjat, the Behsud district (Wardak province) is located in the foothills of the central mountain chain of Koh-i-Baba. Its population consists of Hazaras. The MADERA agricultural programme benefits a potential 25 000 families (120 000 people).

NEEDS AND ACTIVITIES

The economy of the lower valleys of Kunar and Laghman is based on cereal production with, as principal factors in crop production, human labour and cattle power, water, seed and fertilisers. Programmes previously set up by MADERA have, in general, provided an answer to the need for selected seeds, a need which is no longer a priority. The major problem at present is the recultivation by refugees of land that has been fallow for over ten years. Needs in mechanisation are urgent if areas mostly situated in south Kunar and south Laghman are to be rehabilitated as rapidly as possible. Irrigation is another serious problem: erosion of banks and flooding regularly destroy water conduits, and irrigation canals as well as land, bridges and occasionally even villages.

By implementing an important rehabilitation programme, introduced at the end of 1993, to extend over an 18-month period, and assisting in the recultivation of 3 000 hectares, MADERA means to encourage the return of refugees in south Kunar and south Laghman.

Rehabilitation work continued in Kunar throughout 1993. According to HCR sources, 70 000 "Kunaris" are still living in Pakistan, mainly in the region of Bajaur. An investigation in Kunar, carried out by ACBAR during the 1992-1993 winter, indicates that although priorities in the agricultural sphere have been substantially covered, there remains a lot to be done in the educational and health sector. This report should encourage local and international NGOs to put effort into a more integrated approach in their activities, increasingly taking into account the essential needs of the populations.

MADERA has also insisted on continuing its action in the high valleys of Nuristan, the inaccessibility of which largely explains why they have been practically ignored by aid organisations. The economy of the high valleys is centred on livestock but is cereal-deficient. Needs are essentially:

- forest protection, the forest massif of Kunar and Nuristan being virtually the last important massif in the whole of Afghanistan.
- protection of livestock against epidemics and internal and external parasites.
- increase in cultivable land surface by stabilisation of river banks.

Taking these needs into account, the MADERA programme has progressively set up the following services, over the last six years:

- in the agricultural sector, seed testing, distribution of selected seed and fertilisers, sales of herbicides, hire of tractors and threshers at subsidised prices, development of vegetable gardens and the installation of mills in proximity to Nuristani villages to lighten the women's workload.
- in the hydraulics sector, the protection of banks, reinforcement of dams and irrigation canals (gabions and masonry), storage of water from springs and distribution of potable water.
- in the livestock sector, curative treatment provided by a network of veterinary centres and vaccination campaigns against major diseases.
- in the route sector, construction of a track suitable for motor vehicles, completed at the end of 1993, and serving the most densely populated of the high valleys in the province of Nuristan - the Weygal valley - in order to stimulate the local economy by developing contact between a region of animal production and a region of cereal production.
- in the health sector, MADERA has built a clinic in the village of Kamdesh (province of Nuristan) where a medical team from AMI-A (Aide Médicale Internationale - Afghanistan) has been working since the end of 1993.
- in the forestry sector, through awareness and training of local populations in rational management of their forestry capital, management of nurseries and the launching, in 1993, of a programme for plantation of fruit, forest and fodder species.
- control of illicit crop cultivation in the valley of Dara e Noor (province of Nangarhar).
- lastly, emphasis in 1993 was put on maximising farmers' capacities and making them aware of their responsibility so that they may themselves solve the greater part of their production problems.

It can therefore be seen that, in spite of the continuing precarious environment, MADERA has deliberately opted from the outset for an approach to rural development that takes into account the needs in rehabilitation caused by 10 years of war.

PARTNERS AND STRATEGY

Since the beginning of its activity in Afghanistan, MADERA has stressed the importance of getting in touch with local communities and has used the network of traditional structures regulating and organising social life. These are village assemblies in the Nuristani and Pashai zone and "shura" (local assemblies) in the Pachtu zone. These assemblies informally bring together all influential community members.

By maintaining close relations with these structures, relations which have been built over the last 6 years of active presence in the field, MADERA targets its activities and applies them in an understandable and acceptable manner.

Being advisory bodies in determining needs, these assemblies are also active partners in the choice of objectives. They also contribute to the implementation of the programme by helping to find labour for building sites, by making premises available locally to MADERA, and undertaking part of transport or food costs for the working teams. The highest degree of local participation MADERA has obtained is in the hydraulics sector: 2 million rupees for all work carried out between January 1992 and September 1993.

No matter what their degree of importance, the Mujaheddin authorities with armed forces available, must take into account the opinions expressed by the communities from which they themselves have emerged. They must also contribute to the safeguard of projects that are advantageous to their clan or village. Generally speaking, a progressive withdrawal of Mujaheddin forces has been seen, with the re-emergence of the traditional power networks and the progressive rebuilding of civilian society.

This partnership, developed over the last 6 years with the local populations, is the best guarantee of the safety of our teams as well as the durability of our work. This close connection with local communities is the result of permanent presence of MADERA in a relatively small sector of the Afghan territory during these last years. This leads to the appropriation of projects by the beneficiary populations, impossible in the case of limited action scattered over a much larger area.

The capacity to act in Afghanistan, in an environment always characterised by fluctuation in authority and lack of operational administrative structures at a central, provincial and local level, depends largely on in-depth knowledge of the political, social and cultural fabric in the area of the programme. It also appears essential to us to maintain a very close relationship with all local communities, on a basis of neutrality and general interest, without particular affiliations of a religious, political or ethnic nature.

The uncertainty, resulting from the precariousness of the environment, could and still can lead to the belief that a developmental approach has been, and remains, premature in Afghanistan. This is not the opinion of MADERA. On the contrary, this precariousness requires a greater proximity to local communities. MADERA has taken advantage of rehabilitation activities to progressively install the major guidelines of a programme in rural development.

The strategy of MADERA continues to rely on the following principles:

- the participation of the local population which conditions a certain number of activities. The population benefits from regular information about the "why" and the "how" of our activities. Particularly as a result of the network of 35 agro-veterinary and forestry centres installed in Kunar, Laghman, Nuristan, Nangarhar and Wardak, from which the technical personnel of the programme are working.

- the gradual Afghanisation of responsibilities. Gradual, as we feel that the transfer of responsibility cannot be forced. In the last two years, we have given the responsibility for programme implementation to five regional co-ordinators (Laghman, Kunar, Pech, Nuristan, Hazaradjat), supervised by two expatriate technical directors.

The Board of Trustees' meeting of October 1993, held for the first time at Peshawar, reaffirmed objectives, concerning Afghanisation, including the continuation of progressive transfer of responsibility to Afghan managers, the appointment of an Afghan administrator for the programme and the participation of an Afghan staff representative at each of the Board of Trustees' meetings, the delegation of advisory and supportive responsibility rather than management from the expatriate technical managers. Increasing transfer of responsibilities does not signify 100% Afghanisation: programme direction and financial management remains the responsibility of expatriates.

The administration of the programme is still operated from Peshawar (Pakistan), management and accountancy in particular. Two expatriate technical co-ordinators regularly visit Afghanistan on support and control missions. A third expatriate organises an evaluation unit, analysing the impact of the programme.

MADERA has a branch in Paris which maintains the liaison between the field and the members of the Board of Trustees, as well as the donors - the European Union and the French government in particular.

TRAINING FOR DEVELOPMENT

Throughout 1993, MADERA has organised reflection about what should be the content of the word training, taking into account experience but also the limits of work achieved during the previous years.

MADERA attempts to lay increasing stress on the supply of knowledge in relation to supply of input or materials. According to the basic objectives of the association, our actions should facilitate rural development of villages by improving and strengthening the capabilities of farmers, in order to increase their capacity for choice, their economic freedom and promoting exchange between villagers and their active participation in the programme.

An evaluation carried out in this sphere in June 1993 by an expert from the IRAM (Institute of Research and Application of Developmental Methods) drew attention to an approach which gave almost exclusive importance to technical training, an over-vertical relationship between the technical agents from MADERA and the farmers (extension work tended to be too "professorial") and a knowledge of the environment that was too intuitive and insufficiently developed in its economic content.

In order to avoid the role as provider of services and especially of technical assistance, and the trap of "always more", susceptible to being translated into increased investment to the detriment of quality of the programme, and to enable the development of dialogue between technicians on the programme and farmers, MADERA retained the following options in 1993 which should be implemented in 1994 and the coming years:

- to improve diagnosis of local social reality, a prerequisite to any form of extension work,
- to orient MADERA staff, Afghans and expatriates, towards real dialogue with the farmers, the general principle being that it is essential to learn from the farmers, improve their knowledge and understand their problems.
- to decrease the volume of investment in areas where MADERA has been effective for several years and to proceed from reconstruction to development through extension work.

The first steps in this new approach took place in November 1993 in the south of Kunar and these should spread progressively to the rest of the programme.

DESCRIPTION OF ACTIVITIES IN AFGHANISTAN

All MADERA actions can be grouped under the following headings: livestock, agriculture, forestry, hydraulics, construction, control of illicit crop cultivation.

Recently installed, 2 technical support units intervene in all of these activities: the training/extension unit and the monitoring/evaluation unit.

LIVESTOCK SECTOR

INTRODUCTION

The livestock involved in MADERA veterinary activity can be divided up into three categories:

- herds in the high valleys which practice high altitude transhumance
- sedentary herds in the low valleys
- nomadic herds which winter in the area of the programme.

The movement of livestock, transhumant and nomadic, causes sudden changes in feed. The grouping of herds in certain sites also favours the spread of infectious disease and parasites.

Numerous epizootic diseases are, in fact, carried by nomadic herds from neighbouring provinces. They are then transmitted to the generally better cared for and better fed sedentary livestock.

The veterinary laboratory at Chagha Saraï has clearly described the relationship between the prevalence of diseases and the movement of livestock or climatic variations. It has also highlighted the role of parasitism in the health of livestock. MADERA has therefore directed action to the sphere of disease prevention. In the medium term, these efforts should result in an increase in livestock income, contribute to improvement in the population's diet, and strengthen the work force of pack and draught animals.

OBJECTIVES AND ACTIVITIES

Objective 1: To establish diagnosis and provide surgical treatment for herds in the project area.

During 1993, the network of MADERA clinics has been centred on the main towns of districts, and some closed clinics have been converted into branches of the major clinics. At the end of 1993 the network has nine clinics and ten branches spread throughout the Kunar and Laghman provinces.

From 1990 to 1992, curative treatment, initially free of charge and then payable, was a means of entering the environment, introducing extension work and promoting techniques of prevention (vaccines). In 1993 and 1994, prevention is becoming the major principle of MADERA intervention. Training of livestock farmers in diagnosis and medication should lead to a considerable reduction in curative activities in 1994.



Diagnosis

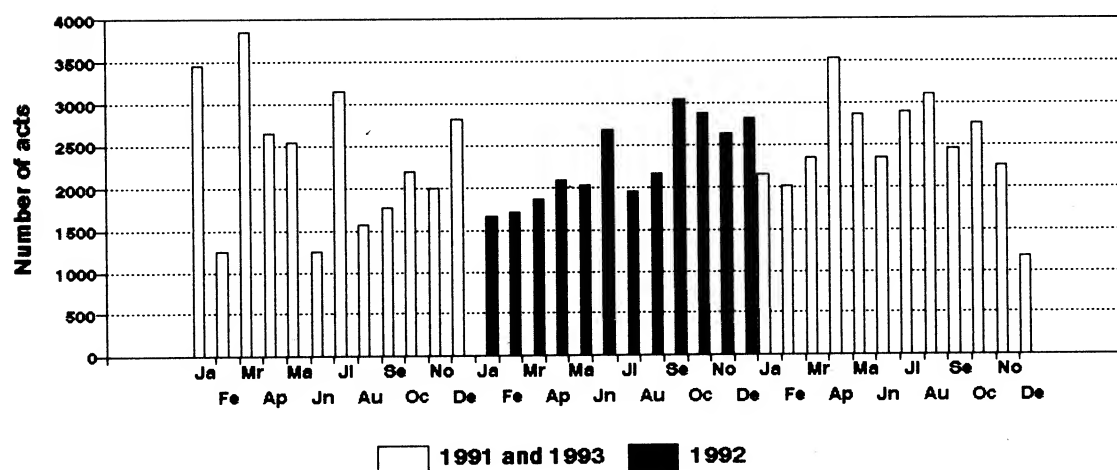
Treatment given in the MADERA clinics in 1993 is shown in the 3 following charts:

Treatments and diagnosis per species

Species	Treatments	Diagnosis	Total
CATTLE	7592	47803	55395
GOATS	12200	381901	394101
SHEEP	6083	94948	101031
POULTRY	426	115671	116097
TOTAL	26301	640323	666624

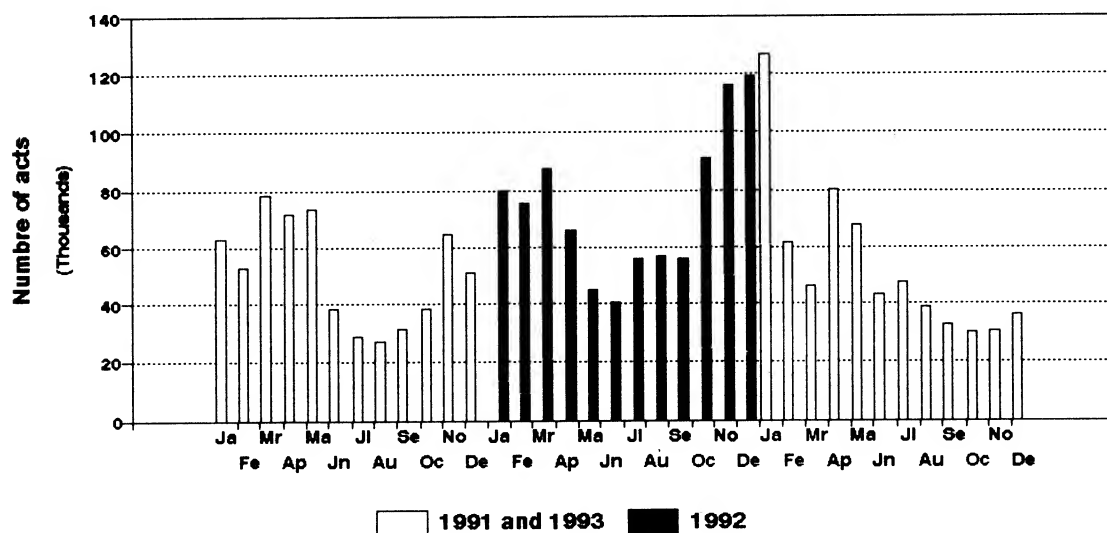
Treatments : practiced free of charged in clinic.

Free surgical treatments. Evolution in 3 years



Surgical interventions carried out free of charge by programme staff are in the minority. The major part of curative activity consists of consultations, and medicines are prescribed which the farmer can purchase at the clinic or in the market and administer himself. 42 560 farmers were thus able to benefit from the assistance of MADERA in 1993.

Diagnosis



The entire veterinary staff of MADERA (vaccinators, paravets and veterinarians) are employed by the programme and are not paid, either totally or partially, by the sales of medicines.

Objective 2: To supply the programme area with preventive and curative medicines.

The programme has drawn up a contract with 12 shopkeepers for the sale of preventive or curative products (Neocidol, Nilverm, Valbazen, Terramycine, ..), purchased by MADERA at Peshawar.

In 1993, MADERA continued its policy of adjusting purchase price to cost price (cost of transport not included) in accordance with the recommendations of ACBAR (Agency Coordinating Body for Afghan Relief).

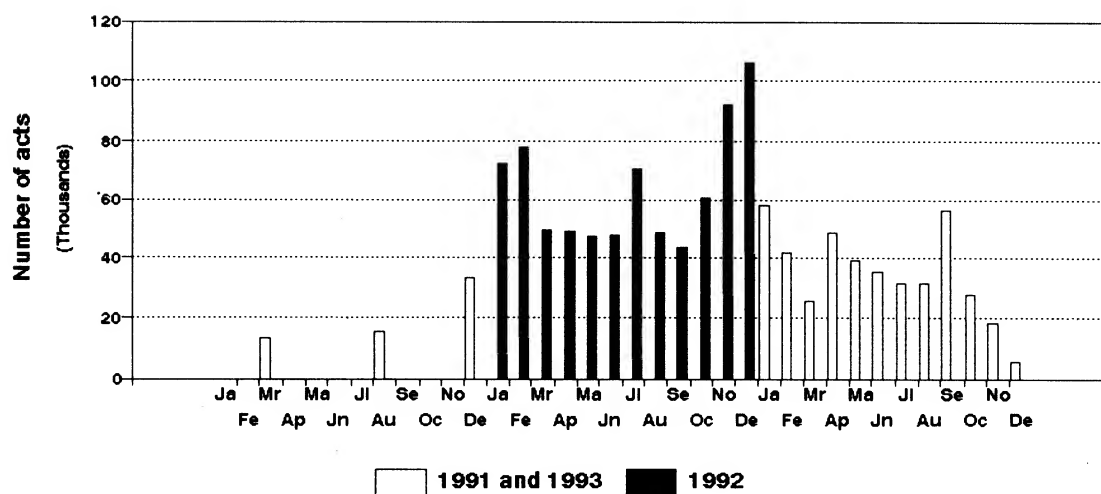
Purchase prices have therefore increased in stages to reach 75% of the cost price in May, 80% in July and 100% in October.



Premises for the storage of medicines in Laghman

The sales of medicines by clinics and the supply of shopkeepers should terminate at the end of April 1994. At this date MADERA should end its policy in this sphere.

Incomes on sales of veterinary medicines



Objective 3 : To prevent major epidemics by vaccination of livestock.

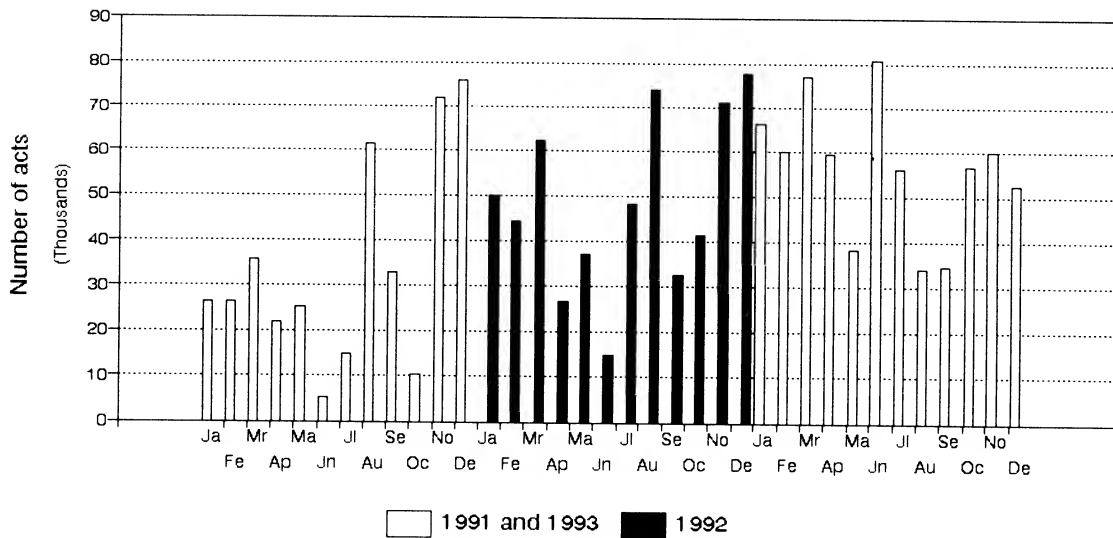
Vaccination treatment is always free of charge. Vaccination campaigns are mainly held from March to May and August to October.

The following chart shows the number of vaccinations given in 1993 per type of vaccine and per animal species:

Number of vaccines given per species by MADERA in 1993

Type of vaccines	Species	Achievements
Anthrax (ASV)	Cattle	18240
Anthrax	Goats	102756
Anthrax	Sheep	12055
Enterotoxaemia (ETV)	Goats	161178
Enterotoxaemia	Sheep	56637
Blackquarter	Cattle	48284
Haemorrhagic septicaemia (HSV)	Cattle	69537
Caprine pleuropneumonia (CCPP)	Goats	69073
Pox (Pox V)	Sheep	16313
Newcastle disease	Poultry	81967
TOTAL		636040

Vaccinations - Evolution in 3 years



The high number of vaccinations given against anthrax and ovine enterotoxaemia is explained by an increase in outbreaks of these diseases from February to April 1993.

In anticipation of the arrival of nomadic herds carrying the major epizootic diseases, the installation of temporary camps vaccinating against enterotoxaemia and haemorrhagic septicaemia at the entrance to the valleys of Kunar and Laghman was planned.

However, this procedure could not be set up in the autumn of 1993 due to the lack of sufficient funds.

The lack of availability of the vaccine against pox, in Pakistan, prevented us from stopping the epidemic that broke out in Laghman in December 1993. The disease took its course with, however, low recorded losses.

This problem of supply also explains the fact that no vaccination was given against infectious agalaxia although several cases were diagnosed both in Kunar and Laghman.

The cold chain installed in 1992 was added to in June 1993 to prevent deterioration of vaccines due to the heat in distant sites of intervention. This made possible the transport and conservation of 828 980 vaccine doses in 1993.

As in preceding years, the majority of vaccines were purchased at Quetta or at the Veterinary Research Institute at Lahore in Pakistan. The vaccine against agalaxia comes from Turkey. However, to combat the irregularity of supply from Pakistan, MADERA decided to start vaccine production in the veterinary laboratory at Chagha Sarai: 30 000 doses of contagious caprine pleuropneumonia vaccine were thus produced in 1993. These covered all needs in Kunar in the autumn vaccination campaign. The laboratory at Chagha Sarai underwent supplementary conversion in December 1993 to facilitate this production. The laboratory has also carried out 1 168 parasitology analyses and 497 bacteriology analyses (see following chart).

Activities of the veterinary laboratory of Chagha-Sarai

BACTERIOLOGY	1990	1991	1992	1993	TOTAL
ANTHRAX	10	1	20	28	59
BLACK-LEG	1				1
DIPLOCOCCUS				1	1
ENTEROTOXAEMIA	3	13	2	11	29
ESCHERICHIA-COLI				8	8
MASTITIS	1		3	18	22
PASTEURELLA-HAEMOLYTICA		3	2		5
SALMONELLA-PULLORUM					0
STAPHYLOCOCCUS				12	12
HAEMORRHAGIC SEPTICAEMIA	4			9	13
BLACK DESEASE		3			3
FOWL CHOLERA		3		53	56
PLEURO PNEUMONIA		9		2	11
STREPTOCOCCUS			1		1
POSITIVE SAMPLES	19	32	28	142	221

PARASITOLOGY	1990	1991	1992	1993	TOTAL
AMOEBAE			15	1	16
ANAPLASMOSIS	1	5	16	5	27
ASCARIS		1	1	11	13
AVINATELLINA-CENTRIPUNCTATA				2	2
BUNOSTOMUM		7	32	20	59
CHABERTIA-OVINA				2	2
COCCIDIOSIS	17	14	156	137	324
COOPERIA-PECTINATA			3	4	7
DICROCOELIUM		2			2
DICTYOCAULUS	5	4	35	28	72
ECHINOCOCCUS	1				1
FASCIOLA-MAGNA				1	1
FASCIOSIS	11	4	15	18	48
HAEMOCHUS-CONTORTUS				3	3
MARSHALLAGIA-MARSHALLI		1		1	2
MONIZIA	2				2
NEMATODIRUS	5	5	39	31	80
OESOPHAGOSTOMUM				4	4
OESTERTAGIA CIRCUMCINCTA	1		5	5	11
PARAMPHISTOMUM			1	1	2
PROSTHOGONIMUS				1	1
SHISTOSOMA BOVIS			1	1	2
STRONGYLUS	13				13
SYNGAMUS LARYNGUS			1		1
TOXOCARA-UITULORUM				7	7
TRICHOSTRONGYLUS SPP		1	9	3	13
TRICHURIS-GLOBULOSA	7	18	17	32	74
POSITIVE SAMPLES	63	62	347	318	790

GRAND TOTAL	82	94	375	460	1011
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Figures correspond with the number of positive samples coming from the veterinary clinic of Kunar. The increase in the n of positive samples from 1990 to 1993 results from an increase in the work load of laboratory, not a general increase in ca of pathology. This data does not presume to give an exact picture of pathology in Kunar but does, however, show the scop variety of the problems encountered. As serological tests could not be performed by the laboratory, agalaxia, Newcastle di pox, foot and mouth disease and pleuropneumonia are diagnosed on clinic examination only. External parasites are also n studied as a result of sampling problems.

Objective 4 : To reinstall and maintain an operational poultry house.

Premises already used for this type of production before the war were renovated in 1992 and were able to house 1 200 laying hens in January 1993. Several pathological factors (coccidiosis and salmonellosis) and the abnormally low protein content in feed purchased in Pakistan affected egg production. These problems were dealt with by the month of June. However, local egg production had been under-estimated during preliminary studies and outlets soon proved to be insufficient. Conversion of the poultry house was then begun to develop chick production for traditional poultry breeding installations.

SUPPORT

The institutions supporting the livestock programme are:

- EU (European Union)
- DCA (Dutch Committee for Afghanistan)

ORIENTATIONS FOR 1994

- in the present context, the hand-over of the veterinary working establishment to a national authority cannot be anticipated in the short term.
- the entire privatisation of veterinary product sales remains an essential objective to be achieved in 1994.

Vaccines against several diseases will be manufactured in 1994 by MADERA, aiming to develop this activity to a maximum. This will allow MADERA to overcome the problem of supply irregularity from Pakistan.

- a second laboratory for analysis and diagnosis will be opened.
- particular emphasis will be placed on the programme of extension work to promote responsibility for diagnosis and medication among the livestock farmers themselves.
- temporary vaccination camps for nomadic herds will be installed in the autumn of 1994 at the entrance to the valleys of Laghman and Kunar.

AGRICULTURAL SECTOR

INTRODUCTION

The purpose of MADERA's action in this sector is essentially to revitalise agricultural activity which has been greatly disturbed by years of war. Since 1993, MADERA has tended to curb direct intervention and to progressively strengthen farmers' autonomy in the project area by improving their mastery of new techniques. The agricultural centre network becomes a structure to implement these dynamics. To this end, MADERA endeavours to reinforce its technical field agents' capacities for diagnosis and intervention so that they are able to fulfil the role of technicians and engineering consultants.

From 1989 to 1992, MADERA's activity was mainly centred on providing input and equipment; from October 1993 on, emphasis was then placed on supply of knowledge and know-how: training of technical and administrative staff; extension and training with the farmers (see training section). However, the introduction of selected seeds and the distribution of agricultural input was continued in 1993. Today introduced varieties of cereals cover 80% of the surface and have given increases in yield of over 30%.

Redynamization of agricultural activity is also the means, for MADERA, of encouraging refugees to resettle their lands and readopt a normal way of life. Within this framework come specific actions for the rehabilitation of land abandoned during the war.

OBJECTIVES AND ACTIVITIES

Objective 1: To provide farmers and former refugees with the means to work the land and thresh cereals at a reduced cost.

MADERA has a fleet of 14 tractors available, equipped with various instruments (ploughshares and disc ploughs, wheat thresher, subsoiler, cultivator, trailer, etc ...). This material is mainly used for three types of work:

- land clearance and ploughing: 3 825 jeribs (765 hectares) have been ploughed for 1 864 families. This activity includes recultivating land abandoned during the war in view of the return of refugees and specific needs of farmers who have not yet reconstituted their working stock.
- wheat threshing: over 55 tons of wheat were threshed for 264 beneficiaries, essentially in the Kunar.
- transport on the MADERA working sites or community sites such as the excavation of building sites.

This service is payable at the rate of 90 Rs per working hour.

Revenue thus balances 95% of operating costs of tractors (fuel, lubricant, maintenance and repairs) and salaries alone remain the responsibility of MADERA. The yearly assessment of tractor activity shows an over-all increase in work of 30% in comparison with 1992, which confirms the importance of these types of action for the population.

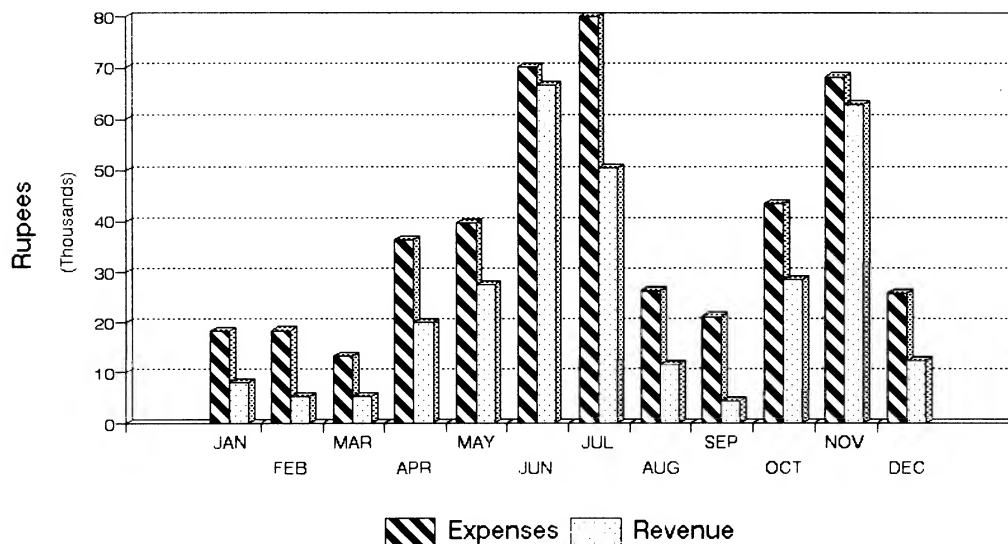
MADERA has also installed a mechanical engineering workshop at Chagah Sarāi in order to reduce the costs of maintenance and repair. This workshop also rents its services to the population for the maintenance and repair of private vehicles.

The installation of a second workshop at Meterlam had been planned in 1993 but this idea was finally abandoned as several private workshops were opened locally: MADERA's role is not to take the place of private initiative but rather to encourage it.



Treshing of wheat

Assessment of expenses and revenue for agricultural mechanisation in 1993

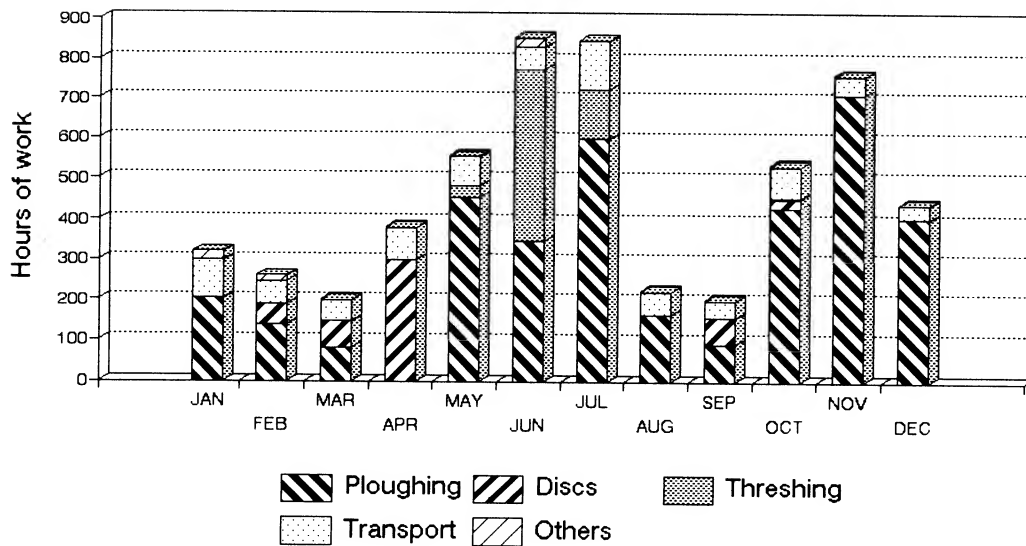


Assessment of agricultural mechanisation activity in 1993

Province	Kounar	Petch	Waygal	Laghman	Total
Number of tractors	5	1	1	4	11 (*)
Beneficiaries	572	417	618	521	2128
Jeribs ploughed	1017	366	508	1934	3825
Kg of wheat threshed	47350	0	8000	0	55350
Ploughing (hours)	471	183	209	2780	3643
Discs (hours)	23	0	0	490	513
Threshing (hours)	504	0	86	0	590
Transport (hours)	65	0	0	758	823
Other work (hours)	8	0	0	58	66
Total hours worked	1071	183	295	4085	5633
Working days	215	27	57	649	948
Repair days	157	14	20	250	441
Total expenses (Rs.)	96801	15765	29447	318982	460995
Total revenue (Rs.)	99342	22960	42100	138478	302880
Profit or loss (Rs.)	2541	7195	12653	-180504	-158115

* in a total of 15 tractors, 2 are permanently allocated to two forestry nurseries and 2 were allocated to the Ningalam-Want road works in 1993.

Distribution of tractor activity in 1993 per month and type of work



Objective 2 : To increase cereal production by supplying selected seed and chemical fertilisers to innovative farmers and to families with little land.

In 1993, MADERA proceeded with the new introduction of selected seeds. 26 tons of wheat supplied by FAO and 75 tons supplied by MCI were thus sold at a subsidised price throughout the programmes. Similarly, 1.6 tons of selected maize seed, 884 kgs of Basmati rice, 750 kgs of barley and 30 kgs of groundnuts were distributed for multiplication.

Lastly, 96 tons of DAP fertiliser were sold at a reduced price (21 tons donated by FAO and 75 tons by MCI).

These activities benefited over 11 000 families.

A large part of these distributions was carried out in Hazaradjat (district of Dahané Ab Darré and Ab Chirum) where MADERA initiated an agricultural programme in 1992 (18% wheat, 100% barley, 22% DAP).

At the same time, the experimental wheat and rice programme was continued in 1993: 4 wheat variety trials sown in 1992 were harvested and analysed; an experiment was carried out on 12 rice varieties in Laghman; in November 1993, in collaboration with the FAO, 16 wheat variety trials were set up in 8 agricultural centres and 10 farm trials were set up over the whole area.



Experimentation in wheat - Dara-e-Noor

The dosage of fertiliser, dates of seeding and use of pesticides were the major themes in extension work.

Analysis of agronomic trials carried out by MADERA since 1990 led to the publication of a summary report. Concerning wheat, this report shows that the use of the selected varieties alone supplied by MADERA result in an increase in yield of approximately 15%.

However, the introduction of varieties is not the only method of improving yields: for this reason MADERA continues extension work in its agricultural centres mainly concerning sowing dates, the use of pesticides and dosage of fertilisers.

Objective 3 : To improve the quality of diet and to provide supplementary income by developing market garden produce.

MADERA is working on the development of market garden cultivation both for family consumption and for commercialisation.

There is a tendency for this market to develop, especially in the periurban area of Jalalabad. In 1993, 793 kgs of vegetable seed and 74 583 vegetable seedlings were distributed to 3 100 families for multiplication. 70% of these vegetable seeds were allocated to the new MADERA programme in Hazaradjat.

At the same time, 10 kg of seeds of French origin (carrots, spinach, onions, aubergines, tomatoes, beetroot), multiplied in 1992, were resown in nurseries. However, only tomato and aubergine varieties gave interesting results: seedlings of these varieties were distributed to farmers to grow for their own consumption or for multiplication for domestic use. Lastly, two varieties of peas from the North of Afghanistan were tested in the agricultural centres of Méterlam and Alichang with a view to introducing this vegetable in Kunar and Laghman.

Objective 4: To increase the consumption of agricultural input while progressively reducing subsidies in sales prices.

MADERA commercialises pesticides, sprays, agricultural tools and cereal and vegetable seeds. Since June 1991, ACBAR has recommended selling agricultural input rather than supplying free of charge, except for refugees in the process of repatriation. MADERA has progressively applied this policy, firstly in Laghman then in Kunar, beginning with pesticides.

Marketing is carried out in three private stores holding a contract with MADERA, and in seven sales outlets managed by the staff of outlets managed by the staff of the programme's agricultural centres. The money thus collected is then reinvested to resupply sales outlets with agricultural input.

SUPPORT

Institutions supporting this agricultural sector are:

- E.U. (European Union)
- F.A.O. (Food and Agriculture Organisation)
- M.C.I. (Mercy Corps International)
- OXFAM
- the French Government.

ORIENTATIONS FOR 1994

- installation of a new rehabilitation sector with a separate budget and a fleet of tractors available to cope with the growing need for the recultivation of fallow land and to facilitate the return of refugees.
- creation of two centres for market garden seed multiplication in Kunar and Laghman.
- training of 500 farmers in cereal and market garden seed production, use of chemical fertilisers and pesticides.



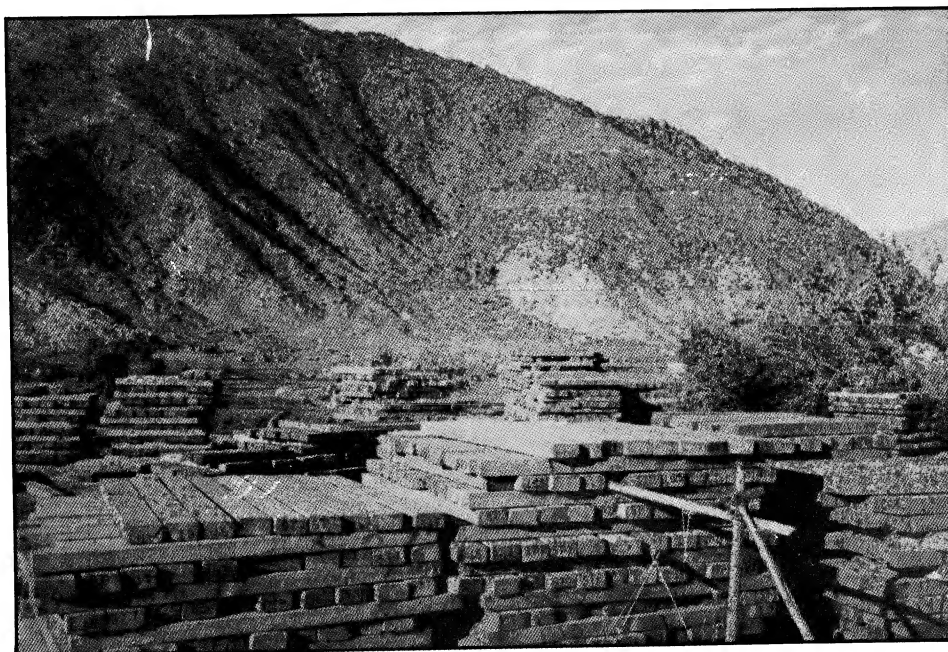
Wheat variety trial in Pir Sabak 85

FORESTRY SECTOR

PRESENTATION

The request for a forestry programme was made to MADERA in 1988 by Afghan scholars, worried about the increasing deforestation in the massif of Kunar. In 1989, Jean Braud, a French forestry expert who had worked in Kunar before the war, drew up an inventory of the Kunar forests during an exploratory mission. The project's first awareness campaign began in 1990 after 10 forestry agents were trained and the mapping out of vegetal cover had started, using field investigations and satellite SPOT images. From 1991 to 1993, activities spread throughout the province, particularly as a result of training 20 new forestry agents and the two largest nurseries in the province, Salar Bagh and Asmar, joining the project.

This programme is aimed at protecting the natural forest of Kunar which is threatened by excessive commercial felling and the increase in pastureland. The major causes of deforestation can be found in the high timber prices in Pakistan and the lack of any control on the Afghan-Pakistan border.



Export of wood to Pakistan

The strategy adopted by the forestry project involves the recognition of local populations' property and usage rights as well as making these populations aware of the effects of deforestation on erosion and the water system. This programme is, moreover, integrated into other development programmes of MADERA, in conformity with the recommendations of the Xth World Forestry Congress.

The project proposes to give the beneficiary populations (30 000 people in 26 villages) advice and aid in the management of their wooded areas. The project employs extension workers (28 forestry agents in 1993), 8 forestry engineers and nurserymen and 6 nursery technicians. It runs 5 local teaching centres and 8 nurseries. The forestry agents, selected from their village, are supervised by the forestry engineers. They provide services such as selective marking, pruning and thinning, as well as training and awareness, control of deforestation, and the protection of an increasing area of natural regeneration against livestock.

Essentially, the mastery of a rational technology of exploitation appears as vital to us for healthy forest management as the necessary effort of plantation. In other words, the objective is not to put the Afghan forest under glass, so to speak, but to promote, by transferring techniques and simple rules, rationalised exploitation of wood as a renewable resource.

Once the wheels of central administration begin turning again, MADERA will present the project to national authorities especially as this project is one of the unique examples, at present, of its kind in this sphere in Afghanistan.

OBJECTIVES AND ACTIVITIES

Objective 1 : To continue awareness work with local communities.

Awareness action is centred in the province of Kunar. It particularly involves 7 villages in the Weygal valley, 3 villages in the Pech valley, 11 villages in the Kamdesh district, 2 villages in the Asmar district, 1 village in the Chawki district and 4 villages in the subdistricts of Watapour, Narang and Nali.

The forestry programme's extension workers are forestry agents selected in their village. These agents are supervised by four forestry engineers.

Twice a week each of the forestry agents visited the shuras (local assemblies) in his zone of activity, the herdsmen and the wood workers ("barriers"). They also selected suitable trees for felling and use as timber. Each forestry agent looked after 400 new seedlings. They also have a role in training villagers in tree selection and improved felling techniques. To this end, a complete set of equipment for felling was supplied to each village.

The forestry engineers hold twice-monthly meetings with their agents and visit the forest massifs of each corresponding village every month.

Extension work is also carried out in schools, and in the mosques after the Friday prayer.

The training-extension section has, in addition, brought out a new poster for sensitization in the protection of the forest massifs, printed in 1 000 copies. Three previously produced posters have also been reprinted, 1 000 copies of each, for the forestry section.

The central office of the forestry programme is located at Asmar where a new training centre was built in 1992.

Up to the present day, 26 protocols have been signed with the various shuras who have undertaken to forbid access to their forest to wood merchants.

Objective 2 : To ensure the functioning of 8 nurseries.

Within the framework of its rehabilitation and rural development programmes, MADERA has installed or taken over 8 fruit and forest tree nurseries. This activity provides a solution to a two-pronged problem:

- to curb the wasting of the forestry capital and to provide healthy management by proposing rural communities' participation in voluntary protection and reafforestation programmes.
- to offer farmers seedlings of adapted fruit tree species and varieties, to enable them to re-establish often ruined plantations, to diversify production, to improve their diet and eventually to market any surplus.

The first objective is of particular interest to people living in low altitude areas where wood is scarce on account of the needs for building material and firewood.

Fruit trees raise great interest everywhere, as fruit production is a tradition in Afghanistan (nuts, mulberries, pomegranates, grapes and figs).

The total number of employees in the nurseries (administration and labour) is 25 for a total surface area of 38 800 m².

The major change in the nursery network concerns the nursery of Nawra (Laghman province). Initially on a very inaccessible site, it has been transferred to Bagh e Saraj (Méterlam) on public land, with activities starting at the beginning of November 1993.

Two small nurseries have also been installed in Hazaradjat, in the districts of Behsud I and II. Conifer and fruit seed was sown over a total surface area of 4 500 m². However, germination was difficult and the survival rate very poor. These mediocre results are mainly due to our inexperience of local climatic conditions. This activity will be continued in 1994: greater attention will be given to sowing dates and the origin of the seed used. The production of fruit trees is also planned to supply the great demand by the population for these species.

In 1993, approximately 50 000 fruit trees and 100 000 forest trees were produced and distributed or used for replanting. The programme also distributed 17 000 fruit trees donated by the F.A.O.

Breakdown of distribution of fruit seedlings given by FAO in 1993

Species	Valley of Petch and Waygal	Valley of Kunar	Laghman	TOTAL
Apricot	2000	2000	2000	6000
Peach	500	500	750	1750
Pear	250	500	250	1000
Apple	1250	1000	2000	4250
Persimmon			500	500
Plum	1000	1000	1500	3500
TOTAL	5000	5000	7000	17000

Fruit tree seedlings were sold at 2 Rs per plant in comparison with 0,5 Rs for forest tree seedlings, which cost less to produce. Sales prices are, however, inferior to cost prices which remain excessive and greatly variable from one nursery to another.

In 1991 and 1992, emphasis was put on providing high quality stock of forest and fruit tree seedlings. Improved profitability of this activity is now necessary, involving an increase in the number and quality of seedlings produced and production rationalisation. This was initiated in 1993 and should continue to develop towards greater decentralisation of production, putting greater emphasis on private initiative.

The development of greater collaboration with other NGOs working in this sphere would be highly desirable, especially in the coordination of policies concerning prices and subsidies.

In 1993, 4 nurseries benefited from financial support from the F.A.O. and four others from assistance by the French government.

Objective 3 : To initiate the replanting work.

In 1993, the forestry sector initiated an important reforestation programme on the banks and islands of the Kunar river in the southern part of the province. The objective was both reforestation and the protection of the banks against the spring floods. A preliminary field investigation and discussions with the shuras led to the identification of 5 different sites. In all, 21 100 shrubs of 5 forest tree species were planted over a total surface area of over 20 hectares, with a survival rate of over 95%.

At the same time 850 cedars were planted in a high altitude area near Want (Weygal valley). This species had been particularly hit by excessive felling.



Nursery of Tchawskou - Kamdesh valley

Number of forest and fruit seedlings available for distribution and sale at the end of 1993.

Nurseries	Asmar	Bagh e Salar	Darra e Noor	Kandesh	Nawra	Pech	Qargha?	Want	TOTAL
Species									
Apricot	3370	54	310	474	200	920	2502	887	8717
Almond	1374	900	700	270	692	388	212		4536
Cherry		200		103				50	353
Lemon						143			143
Quince			257			68			325
Fig			226			74			300
Pomegranate			516			203			719
Keno	270								270
Mulberry	400				753				1153
Medlar			208		700				908
Walnut	200	1000	272	100	660	74	311		2617
Olive		333							333
Orange					1390		910		2300
P. Amygdalus								511	511
Peach	1430	220		500	135	345	444	540	3614
Persimon					890				890
Apple	794	50							844
Plum					890		627		1427
Vine	140		710	343	70	437			1700
FRUIT TOTAL	7978	2757	3199	1790	6290	2652	5006	1988	31660
Acacia nilotica			120						120
Allianthus	500	2000		2654				812	5966
Cedars						2987		300	3287
Spruces								24	24
Eucalyptus canaid.		54575	2000					6000	62575
Leucaena leucoceph.		4000	1300						5300
P. Gerardiana								36	36
Poplar alba	1300	3000		634		158	6453		11545
Poplar deltoides					1980				1980
Robinia		1575		2054					3629
Pines								56	56
TOTAL FOREST	1800	65150	3420	5342	1980	3145	6453	7228	94518
OVER-ALL TOTAL	9778	67907	6619	7132	8270	5797	11459	9216	126178

Number of forest seedlings replanted per species and per site

Replanting sites	Saray	Dandoono Bela	Kochlano Bela	Bagh e Salar	Asmar Sankay	Want	TOTAL
Forest species							
Cedar						850	850
Eucalyptus		7000	2000	300	2500		11800
Leucaena		100			300		400
Allianthus		1500			400		1900
Robinia					500		500
Poplar		4000	2500				6500

Objective 4 : The installation of a sawmill at Want

Anticipating an increase in the need for timber with the massive return of refugees, MADERA undertook the installation of a sawmill at Want on the Weygal river.

At the end of 1993, a saw with a horizontal blade and a carpentry saw had been transported as far as Nangalam, the buildings of the sawmill were completed, four carpenters were selected and an agreement reached with the shura of Keygal for the purchase of wood. However, delays in finishing the Nangalam-Want route postponed the start of operations. Although light parts could be transported by men, the transport of the heavy material is only possible on a route suitable for motor vehicles and had to wait until the route was completed at the beginning of 1994.

This activity has developed substantially since in conformity with our expectations. Several private sawing workshops have been created in the valleys of Pech and Weygal and the shura of the valley has stated its wish to take over the management of the sawmill in near future. The conditions of this hand-over to the local community will be specified in a contract with the shura. A monitoring procedure for this workshop will be determined to ensure that activity is not contrary to the objectives of MADERA concerning the protection of wooded areas.

SUPPORT

- the French government
- F.A.O. (Food and Agriculture Organisation)
- European Union
- N.A.C. (Norwegian Committee for Afghanistan)

ORIENTATIONS FOR 1994

- to continue awareness, which will remain the underlying principle of the programme.
- to resume the forestry inventory.
- to reinforce the integration of forestry activities into the MADERA agro-pastoral programme.
- the programme's nurseries will be the subject of a profitability study which should lead to the reorganisation of this production outlet.

HYDRAULICS SECTOR

INTRODUCTION

As in the majority of Afghan provinces, the agrarian systems of Kunar, Laghman and Nangarhar are strongly dependent on irrigation. Rainfall is, in fact, insufficient to satisfy the needs for water of the two cultivation cycles per year. Irrigation networks therefore traditionally allow for exploitation of water originating from the melting of snow at high altitudes. Essential for summer crop cultivation (mainly rice and maize) in every area, irrigation also provides an increase of water resources for winter crops in the valleys (mainly wheat).

During the war years, the canals, kareezs and other hydraulics structures were heavily damaged by bombing or lack of maintenance. In addition, in the zones abandoned by refugees, lack of maintenance of the banks together with the flooding of the rivers in spring led to excessive variation of the river courses and, at the same time, reduction of the cultivable land surface.

Lastly, former refugees, having returned to their lands, are more vulnerable to water-born diseases.

In these circumstances, the hydraulics sector of MADERA developed various types of activity in 1990 :

- protection of banks threatened by flooding, using gabions,
- rehabilitation of irrigation networks: canals, kareezs, intakes on rivers and various structures.
- build-up of retaining walls,
- installation or rehabilitation of village water supply networks,
- construction of village hydro-electric plants.

1993 was marked by a considerable increase in the hydraulics sector's activities: the number of works completed by MADERA therefore grew from 18 in 1992 to 34 in 1993.

Prior to the beginning of each hydraulics project, an agreement is drawn up between MADERA and the rural community concerned, with terms in which the latter agree to furnish a high degree of participation. This participation is in the form of free transport or building labour, supply of local materials (stones and gravel) or food for the building site workers.

OBJECTIVES AND ACTIVITIES

Objective 1 : To protect the banks of water courses against flooding by means of gabions.

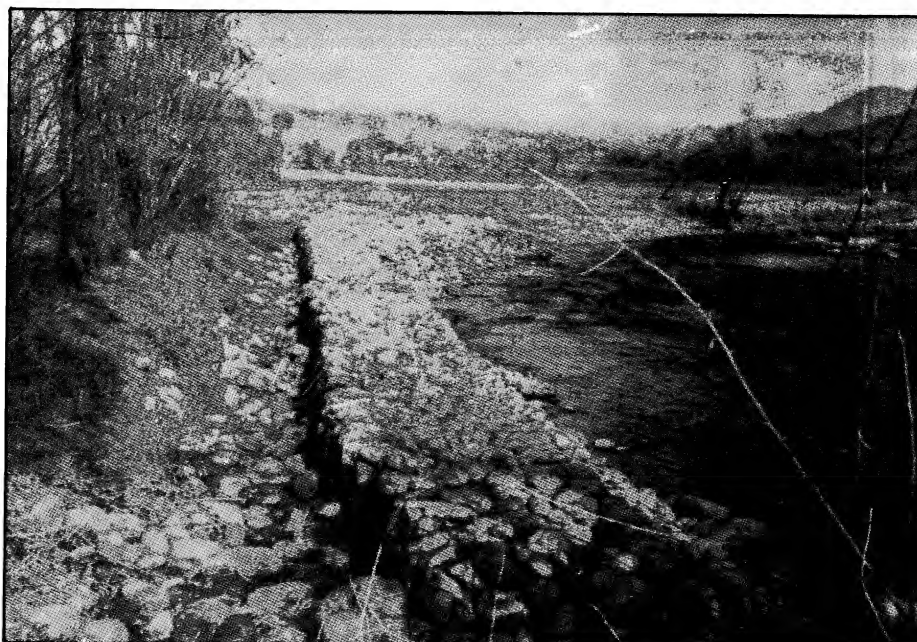
Less costly than cemented structures, gabions have the same degree of efficiency in many situations. They are used to strengthen and stabilise river banks. They also ensure maintenance of the rivers in their riverbeds and limit spring flooding caused by snow melt.

Sixteen sites of this type were completed in 1993: six are located in Kunar, eight in Laghman and two in Nangarhar. The volume of gabion built has thus risen to 7 457 cubic metres, enabling the protection of 2 508 jeribs (501 hectares) for 1 308 beneficiary families. On average, 29% of the cost of these projects was supplied by local participation.

List of gabion working sites completed by MADERA in 1993.

Province	Village	Start of project	End of project	Volume of gabion (m3)	Length of gabion (m)	Protected Land (Jerib)	Number of Benefitted Families	Percentage of Local Participation
Kounar	Pashad	Jan. 93	Feb. 93	769	222	220	350	29
	Gulsalak	Oct. 92	Jan. 93	320	100	45	160	20
	Kanday	Oct. 92	Jan. 93	703	120	65	90	17
	Want	Jan. 93	May 93	296	205	75	15	10
	Wodigram	Feb 93	May 93	578	110	55	120	14
	Shenegal	Apr. 93	June 93	102	65	20	15	12
Laghman	Nawra	Dec. 93	Apr. 93	1007	370	400	80	25
	Dabarah	Dec. 93	Apr. 93	887	361	585	110 (*)	41
	Abizai Kachur	Feb 93	Apr. 93	390	150	100	30	38
	Qasaba	March 9	Apr. 93	114	58	15	3	63
	Shamati	March 9	Apr. 93	69	40	5	20	47
	Kuttakhel	March 9	Apr. 93	91	47	10	30	63
	Tingawar	Feb. 93	May 93	340	139	85	175	39
	Bilah	Jan. 93	Feb. 93	165	55	15	30	14
Nangarha	Dara e Noor	Nov. 92	Jan. 93	850	240	150	30	20
	Katchara	Jan. 93	Apr. 93	776	225	200	50 (*)	17
TOTAL				7457	2507	2045	1308	

* Assessment unconfirmed by field supervision.



Gabion of Dabarah - Laghman

Objective 2 : Rehabilitation of irrigation networks damaged during the war.

The clearing-out, repair and eventual extension of the canals increases the amount of water available for irrigation and improves the regularity of supplies.

In the zones abandoned during the war, the rehabilitation of irrigation networks is an essential measure to encourage the refugees to return to their lands.

In 1993, ten canals were rehabilitated by MADERA: three are located in Kunar, six in Laghman and one in Nangarhar. The total length of cleared and repaired canals is 8 240 metres, enabling the irrigation of 8 440 jeribs (1 688 hectares) for 2 440 beneficiary families. Local participation represents on average 29% of the total cost of this work.

List of completed canal works by MADERA in 1993

Province	Village	Start of project	End of project	Length of canal rehabilitated (m)	Volume of gabion (m3)	Volume cemente (m3)	Surface irrigated (Jerib)	Number of beneficiary	Percentage of Local Participation
Kunar	Mandagal	July 93	Feb. 93	4850		100	2000	800	23
	Shinkorak	Dec. 92	Feb. 93	805	120	92	800	80	23
	Pambazar	June 93	Dec. 93	805		100	800	200	41
Laghman	Badiabad	March	Sep. 93	30		65	1500	280	64
	Badraw	July 93	Jan. 93	70		800	1500	800	3
	Malil	Feb. 93	March	1200		0	100	120	47
	Kachur	Sep. 92	Feb. 93	100		300	190	120	24
	Chalmati	Apr. 93	May 93	150		117	800	80	36
	Tangiware	Oct. 92	Feb. 93	100	70	1200	800	200	12
Nangarh	Jehamnir	Sep. 93	Dec. 94	690	105	94	150	100	11
TOTAL				8240	295	2868	8440	2440	

Furthermore, a network of underground irrigation structures, called kareez, was repaired in the Dara-e-Noor valley (Nangarhar). Eleven kareezs, one intake and a canal were cleaned and repaired for a total of 13 062 beneficiary people.

Objective 3 : To provide potable water for mountain villages by water supply projects.

Five water supply projects were completed in 1993: four are located in Kunar, and one in Laghman. In all, 13 314 metres of piping was laid and ten reservoirs, with a total capacity of 322 cubic metres, were built for 760 beneficiary families. Local participation represented on average 18% of the projects' total cost.

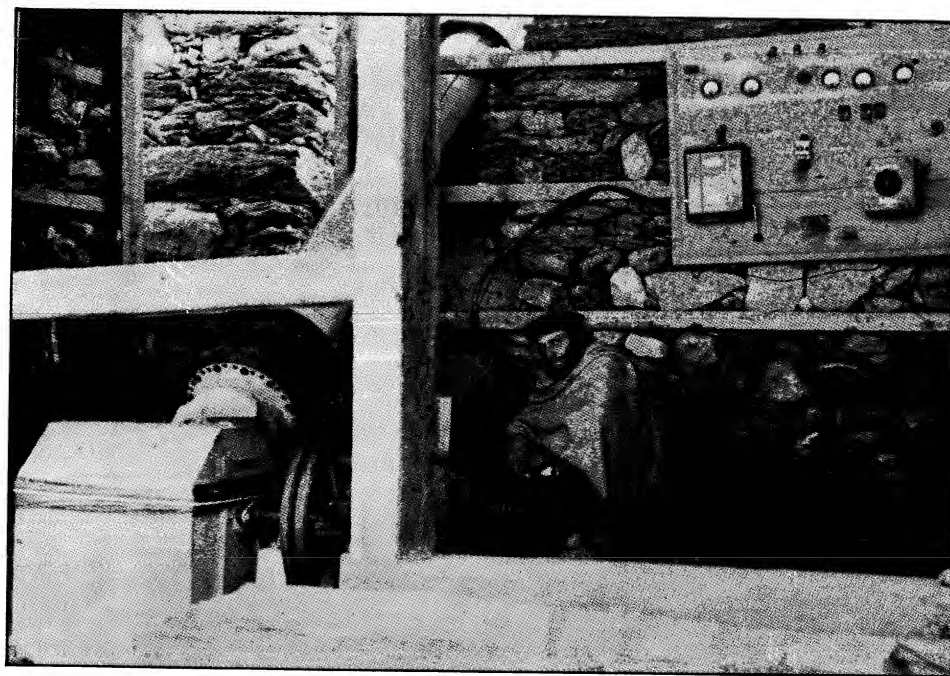
List of water adduction building sites completed by MADERA in 1993

Province	Village	Start of project	End of project	Length of tubes (m)	Number of reservoirs	Total volume (m3 reservoirs)	Number of benefitted families	Percentage of local participation
Kounar	Gazark	Aug. 93	Sep. 93	2670	2	61	80	55
	Shahilam	March 93	Apr. 93	244	3	28	80	8
	Ameshdesh (*)	Aug. 93	Sep. 93	0	1	70	100	12
	Manogay	Sep. 92	Feb. 93	5550	2	79	100	6
Laghman	Aranz	Aug. 93	Sep. 93	4850	2	84	400	8
TOTALUX				13314	10	322	760	

* Retaining wall without water supply

Objective 4 : To improve the local populations' living conditions by building village hydro-electric plants.

Two hydro-electric plants and dependant electricity networks were installed in the villages of Aranz and Gulsalak (Laghman). The sites chosen were especially suitable for this type of installation, having a waterfall in close proximity.



Electricity production at Aranz - Weygal valley, Kunar

The plant installed at Aranz has a capacity of 30 kW. 4 000 metres of electric line were installed and a 116 metre supply canal was dug. 400 families benefit from this installation and 14% of the total cost of work was supplied free of charge by the participating population.

The plant at Gulsalak has a capacity of 1 000 kW. The installation of this plant necessitated the digging of a 5 030 metre supply canal. 1 920 metres of electricity line were installed to distribute electricity to 700 beneficiary families. Local participation accounted for 16% of the total cost of works.

SUPPORT

- E.U. (European Union)
- W.F.P. (World Food Programme)
- D.G.L.D.T. (Délégation Générale pour la Lutte contre les Drogues et la Toxicomanie- French Government's Drug Control Commission)
- U.N.D.C.P. (United Nations Drug Control Programme)

ORIENTATIONS FOR 1994

- to complete works started in 1993 and start new projects in canal repair, protection of cultivable land and water supply.
- to intensify rehabilitation work in the zones of massive refugee return (Nangarhar and South Laghman) and to create a new sector in MADERA, specialising in this type of action.



Canal of Badraw at Alishang - Laghman

CONSTRUCTION

INTRODUCTION

MADERA builds two types of structure in its zone of action:

- agricultural and forestry centres and veterinary clinics necessary for the activity of the programme in the corresponding sectors. At the end of the project, these buildings will be transferred to an Afghan governmental authority.
- structures for key sectors of rural development: health, education and routes (land communication). In this sphere, MADERA does not wish to act in the place of an Afghan administration but rather, as far as means allow, to surmount certain obstacles to the economic development of the regions involved.

OBJECTIVES AND ACTIVITIES

Objective 1 : To open up the Weygal valley by building a 10,5 km route suitable for motor vehicles from Nangalam to Want.

The high valleys of Nuristan, where MADERA began its activities, are especially isolated and exist in near autarcy. The local populations made several unsuccessful requests to the Afghan government in the 1960s and 1970s: to build a route suitable for motor vehicles between Want and Weygal giving access to the lower valley. This request was renewed to MADERA. The risks were, however, great on a social level (ethnic rivalry) as well as affecting environment and preservation of the forest massifs. Relying on dynamism based on developing exchange, and with the means available for forestry protection through the existing forestry programme, MADERA decided to build this road with the support of the European Union. Three years of planning, and a socio-economic study by two French agricultural engineers requested by MADERA, preceded the launching of the works. The mapping of the route was the subject of consultation with the populations.

Work was able to begin in June 1992. Lacking sufficient expertise in this field, MADERA drew up a technical assistance contract with another European NGO, DACAAR (Danish Committee for Aid to Afghan Refugees) with recognised competence in the sphere of road construction. 265 tons of wheat were also supplied by the World Food Programme to make possible the employment of a greater number of labourers. About one hundred temporary labourers, in teams of 20, were employed for the duration of the road works. Apart from the digging, levelling and filling work, this site included the building of a bridge and several supporting walls.

Completion was planned for June 1993, but was delayed as a result of initial underestimation of technical difficulties and political problems: several residents living alongside the road, from the Safi clan who are traditionally opposed to the Nuristanis, prevented access during the construction.

At the end of 1993, 10 km of route had been completed and the road will be opened during the first three months of 1994. This route, suitable for motor vehicles, will be one of MADERA's most important achievements in its sphere of action.

Objective 2 : To construct two mule tracks to open up the valleys of Weygal and Paroun.

The construction of a mule track between Want and Weygal is complementary to the construction of the Nangalam/Want route. Work began at the end of 1992 and 10 km of track were finished at the end of 1993.



Work with drill on the track Wama/Paroun
Valley of Petch

The construction of a mule track between Gulsalak and Paroun began in mid-July 1992 with the support of the World Food Programme. The objective here is to facilitate travel and connect these two very isolated villages in Nuristan; this track completes the track built by VITA, an American NGO, between Gulsalak and Wama. The Gulsalak/Paroun track, 50 km long, was initially planned as a 2,5 metre wide mule track. On the request of the shura of Wama/Paroun its width was finally increased to 4 metres to make a track suitable for motor vehicles. At the end of 1993, 11 km of track had been completed.

In addition, 5,5 km of track had been improved in the district of Alishang (Laghman) giving better access to several large villages in the valley.

Objective 3 : To build a school and hospital at Kamdesh.

The high valley of Kunar, with a Nuristani population, was ignored for a long time by the various non governmental or international organisations in Afghanistan.

The school and hospital at Kamdesh were initially planned to accompany the forestry programme, answering the populations' request for facilities and lending credibility to sensitization action for the protection of the forest massifs.

These two buildings were finished in December 1993 and are now in use. The clinic has been handed over to AMI-A (Aide Medicale Internationale - Afghanistan) and a medical team from this NGO is working there.

SUPPORT

- E.U. (European Union)
- W.F.P. (World Food Programme)

ORIENTATIONS FOR 1994

- to complete the track for motor vehicles between Nangalam and Want and to finish the two tracks linking Wama to Paroun and Want to Weygal.
- to build 2 new agricultural centres, 1 clinic and 1 forestry centre.



The school of Kamdesh - Nuristan

THE CONTROL OF ILLICIT CROP CULTIVATION

INTRODUCTION

The poppy was cultivated in several provinces of Afghanistan prior to the coup d'état of 1978: Helmand, Badakhshan, Kunar and Nangarhar were important regions of production. Opium is, in fact, a traditional crop in Afghanistan, for marketing or family consumption (analgesic, oil,...).

Before the coup d'état, the government exercised strict control over the cultivation of poppies. After 1978, and especially after the soviet invasion, poppy cultivation spread out from the traditional areas of production.

Afghanistan is in the zone of the Golden Crescent in which production exceeds that of the Golden Triangle in South East Asia. Pakistan, and especially the tribal areas of Khyber and Girdi, remain the major zone of conversion into heroin and passage to the markets in Western Europe.

During the war, destruction or disuse of irrigation networks resulted in a reduction in cultivated land area. Furthermore, the lack of agricultural input (improved seed, pesticides, fertilisers) caused a severe reduction in yields. These circumstances led farmers to convert part of their food-producing fields into poppy fields, with a much higher income per jerib. At present, the refugees returning to their villages are tempted by poppy cultivation when faced with an urgent need for funds to rebuild their houses or their herds.

Organisations providing assistance in Afghanistan became interested to fight poppy production for two reasons:

- The ever-present possibility that assistance provided in the agricultural sector (fertilisers and work on irrigation canals) could be profitable to poppy cultivation rather than food crops.
- Infrastructure and development projects could be offered by these organisations in exchange for reduction in the surface area under poppy cultivation by beneficiaries of aid.

Certain measures can, in fact, be very effective in stopping spread and leading to a considerable reduction in surfaces under poppy cultivation. MADERA has set up two types of activity in this sphere: on the one hand, restoring the basis for raised agricultural production by means of rehabilitation projects eliminating the farmers' need to produce narcotics; on the other hand, by proposing adequate substitute crops bringing in comparable incomes.

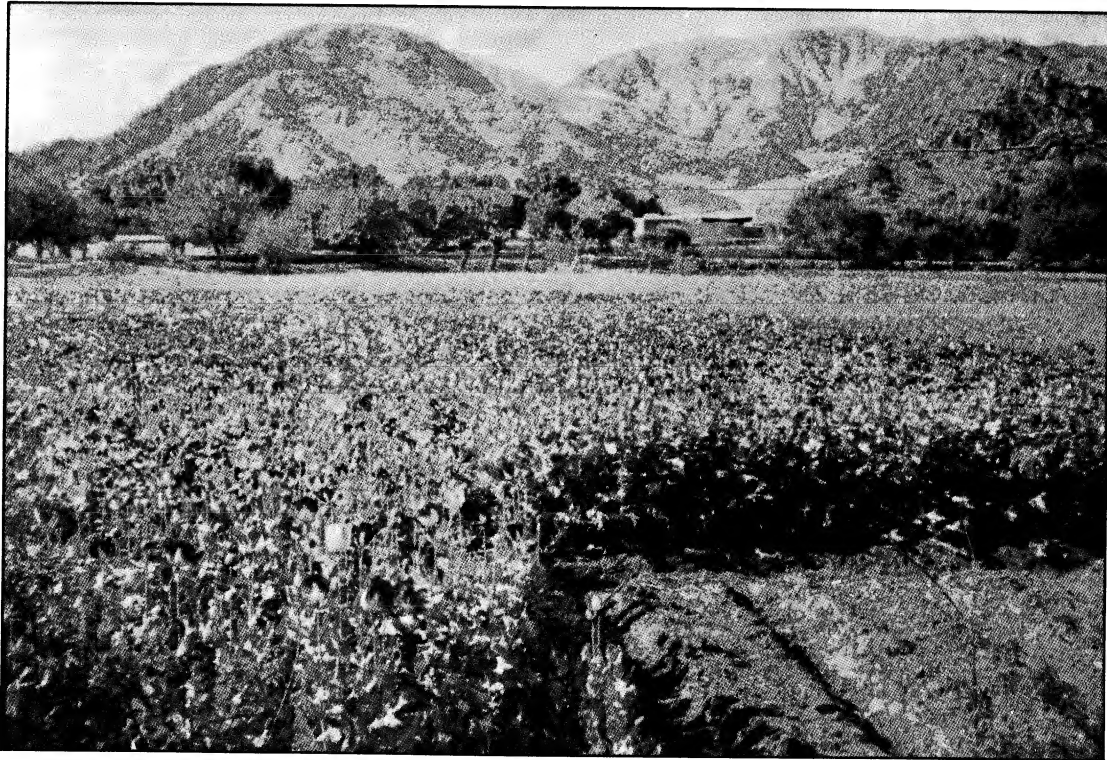
In addition, to judge whether these development projects have a positive or negative effect on poppy production, MADERA has decided to assess regularly the surface area under poppies in the producing areas of its zone of activity, namely the south of Kunar and the north of Nangarhar.

OBJECTIVES AND ACTIVITIES

Objective 1 : Evaluation mission for increased knowledge of the situation.

An investigation was carried out in March 1993

to estimate the percentage of land under poppy cultivation in 17 villages of 7 districts of the south of Kunar (Kouz Kounar, Khas Kounar) and the north of Nangarhar (Dara-e-Noor). Results showed that the percentage of land under poppy cultivation varied from 0 to 42%. The highest figures were recorded in the district of Dara-e-Noor with an average percentage of 19% of land under poppy cultivation.



Poppy and wheat fields

A similar investigation will be initiated in April 1994 in Kunar to give an evolutionary picture of the situation and to determine the impact of refugees' return on narcotic production.

Objective 2 : Experimentation on a substitute crop, saffron.

The experimental programme, initiated in September 1991 in Kunar and Laghman, continued in 1993. Saffron is a semi-perennial crop which provides a high income and which can be suggested to farmers as a substitute for the poppy.

Identical agronomic trials were installed simultaneously in five MADERA agricultural centres at altitudes of between 770 m and 1070 m. The objective of this experiment was to determine the influence of the climatic environment and technical cultivation practices on seedling development and saffron production.

Results showed that bulbs of a large size gave a higher percentage of germination, with earlier flowering and greater production of bulbs in the first year of cultivation.

Furthermore, the highest production of bulbs was seen at an altitude of 1010 m. where the temperature was coolest. These results demonstrate good adaptation of saffron cultivation to the climatic conditions in the area of the project.

They must, however, be confirmed before extending saffron cultivation on a large scale.

Objective 3 : To rehabilitate cultivable land and rebuild a college to assist in the return of refugees in zones of potential spread of poppy cultivation.

In 1993, MADERA initiated the rehabilitation of the irrigation system of the Dara-e-Noor valley (north of Nangarhar). 11 kareezs, underground water channels, were cleaned and repaired. The maintenance of one water point and 2 canals were ensured. As a result of these interventions, 2 850 jeribs were recultivated. In the same zone, since January 1993, MADERA has been rebuilding a college that was destroyed during hostilities. The project aims, in the short term, to encourage the return of refugees and, in the medium and long term, to increase the literacy rate and improve the economic and social environment.

At the same time, meetings were held for awareness to the dangers of illicit crop cultivation, and the shuras agreed to support the reduction of poppy production.

SUPPORT

- D.G.L.D.T. (Délégation Générale pour la Lutte contre les Drogues et la Toxicomanie-Drug Control Commission) French government.
- U.N.D.P. (United Nations Drug Programme).

ORIENTATIONS FOR 1994

- to continue investigations in order to obtain a picture of the developing situation.
- to continue the rehabilitation programme and intensive awareness campaign in the agricultural zones of Kunar and Nangarhar.

TRAINING AND EXTENSION WORK

INTRODUCTION

MADERA has an internal training-extension department. In the training sphere, this service's function is to analyse the needs of MADERA personnel in this field and to detect competence in the programme team or in external institutions to organise teaching sessions and facilitate practical implementation. Training concerns all MADERA sectors of activity and aims at refreshing and deepening knowledge and technical competence.



Training of forestry agents - Kamday - Pech valley

The increasingly important role played by Afghan managers in orientation and in the execution of the programme also requires that the greatest attention be given to training in exercising responsibilities (reporting, foreign languages, accountancy-management). Such training is fundamental to Afghanisation, already in practice in the responsibilities assigned to five regional Afghan coordinators (Laghman, valleys of Kunar, Pech Valley, Weygal valley and Hazaradjat) and to the Afghan manager in charge of the forestry programme implementation.

In the sphere of extension work, the training-extension service's major mission is to prepare technical field agents in the task of extension. This necessitates developing their initially professorial concept of their role as extension workers towards a participatory training-advisory concept.

With this aim, and with the support of a French consultant of IRAM (Institute of Research and Application of Methods of Development), a programme for action was developed: this programme aims at encouraging field agents to develop their work on the basis of the farmers' knowledge and experience and to provide them with simple methodological tools for the analysis of rural problems and the exercise of their training-advisory mission (organisation of meetings, interviewing techniques).

OBJECTIVES AND RESULTS

Objective 1 : To improve the competence of Afghan managers in programme administration and extension work.

Training sessions for the Afghan management personnel of the programme were the following:

- * A four-day workshop in activity management training was organised in April for 47 employees (April 1993).
- * Four employees attended a seven-day course, given by the Save the Children Fund, on data collection and field supervision. Two sectoral heads also took part in a fifteen-day teacher training session provided by the same organisation (May to June 1993).
- * Six employees were trained in computing: four received internal training in current computing applications (word processor and spread sheet) and two attended a course in computer-assisted cartography organised by USAID (United States Agency for International Development: November and December 1993).
- * Four administrative staff members began initiation or improvement courses in French and three in English organised by the Alliance Française and the English Language Programme.
- * Fifteen technical managers took part in a workshop on participatory extension work organised by the monitoring - assessment unit of the programme.

Furthermore, the Afghan manager of the forestry sector went on a study trip to France and visited several forests, nurseries, training and forestry research centres.

Objective 2 : To reinforce technical potential in the veterinary, agricultural and forestry sectors.

Veterinary sector:

- * Three vaccinators attended a six-month course provided by the D.C.A. (Dutch Committee for Afghanistan; January to July 1993).
- * Six paravets took part in an internal two-week refresher course (January to February 1993).
- * Three veterinarians attended a refresher course given by the G.A.F. (German Afghan Foundation: May 1993).
- * Eleven veterinarians and paravets took part in a course in gestational diagnosis organised by MADERA at Jalalabad (August 1993).

Agricultural sector:

- * Two agronomists attended training for nurserymen organised by the F.A.O. (January 1993).

- * Twenty one agronomists took part in internal refresher courses (February, March, June, July, and August 1993).
- * Two employees took part in a three-day training course in the supervision of wheat and maize trials organised by the F.A.O. (June 1993) and eighteen employees took part in a one-day internal training course on the varieties of wheat and maize (October 1993).
- * One agronomist attended a course on the control of illicit crop cultivation organised by the U.N.D.C.P.

Forestry sector:

- * Twenty five forestry personnel attended courses in applied mathematics organised by MADERA (April, May and June 1993).
- * Three foresters attended a course on forestry and three nurserymen attended a course on grafting. These two courses were organised by F.A.O. (May and August 1993).
- * A course in topography was organised by MADERA for 25 forestry agents (July and October 1993).
- * Four forestry agents and seven farmers-nurserymen were trained in grafting during a course organised by MADERA (August 1993).

Objective 3 : Creation and distribution of technical documents, adapted to Afghan culture, for extension and awareness work in the veterinary, agricultural and forestry sectors.

- * 4 numbers of the internal review Barg a Sabz ("The Green Leaf") were edited in Pachtou and Dari and 5 000 copies distributed in Kunar, Laghman and Nangarhar.
- * Two technical sheets were edited and published in 2 500 copies for the forestry and agriculture sectors.
- * A manual in parasitology was written and 200 copies issued.
- * 2 000 stickers representing MADERA and the European Union were produced.
- * A new poster was developed for the forestry sector and 1 000 copies printed, and 1 000 copies each of three previously developed posters were printed.
- * The annual MADERA activity report for 1992 was edited and 650 copies distributed in French and English.
- * A video film on all programme activities was made by the Afghan personnel. The aim of this material is to give central and provincial Afghan authorities, as well as funding organisations, better understanding of the reality of the programme in the field.

SUPPORT

- E.U. (European Union)
- the French government.

ORIENTATIONS FOR 1994

- to train the teachers-advisers, already technically competent in social skills and with sufficient motivation needed for the success of such a mission, in techniques of communication and diagnosis of agrarian problems.
- to continue the effort in personnel training and publication of technical documents.

MONITORING - EVALUATION UNIT

INTRODUCTION

The monitoring - evaluation unit was created in the spring of 1992 to deal with the increase in the programme's size. Its aim, from the outset, was to enable efficient collection of field data and standardisation of this information.

Monitoring mainly consists of regular collection, using adapted indicators, of precise information in each technical sector of the programme. This information can be divided into two types:

- technical data concerning the progress of each activity. This data allows judgement of the progress of actions in relation to objectives and the previously determined work plan.
- data enabling quantification of the number of beneficiaries for each activity and definition of each geographical area concerned.

Efficient monitoring involves, furthermore, comparison of information received in Peshawar with direct observation in the field.

Monitoring data is used both as technical information for project management and for the drafting of reports for the various bodies financing the programme.

Evaluation aims at periodically estimating the efficiency of activities and their impact on the population and regions involved. Monitoring and evaluation are largely complementary: evaluation uses monitoring data and, if necessary, is combined with impact data to make a periodic assessment of programme activities.

Initially the monitoring component was given greater importance. However, the monitoring - evaluation unit is progressing towards a wider concept of its mission. Its aim is to become a pilot tool providing information needed for decision-making by the Board of Trustees, the programme Director and technical Directors. This involves both sufficient rapidity in data collection and processing, and data presentation in a form which answers the needs of the decision-makers: as well as progressive reviewing of results and comparison with objectives. Information supplied by the monitoring - evaluation unit then makes possible the adaptation of means of intervention and, eventually, the objectives of the changing rural environment in the programme's zone of action.

Furthermore, MADERA has requested an evaluation of its activities by external assessors several times over the last five years. Such evaluations give greater objectivity and often provide very beneficial recommendations to the programme. They are also a supplementary guarantee for the financing organisations of the correct use of funds assigned to the programme.

OBJECTIVES AND ACTIVITIES

Objective 1 : To follow up all programme activities and evaluate internally the impact of action.

In 1993, the unit continued to put in place a system, begun in 1992, of collection and processing of technical activity indicators for programme follow-up on a monthly basis. In particular, new monthly report forms were drafted for the agricultural and hydraulics sectors and a computer data base developed to process information concerning work sites in the latter sector.

Training courses were organised to familiarise technical field personnel with monitoring procedures and the use of the monthly report forms.

Furthermore, the unit carried out several investigations:

- analysis of veterinary clinic activity concerning record-keeping, study of costs and the geographical distribution of the villages of the beneficiaries around each clinic.
- field investigation in the valley of Dara-e-Noor of the motivation of poppy farmers, the profitability of this crop cultivation and sales outlets.

The monitoring - evaluation unit also published a summary concerning the analysis of agronomic trials carried out by the programme from 1990 to 1993. This document is available in French, English and Persian.

Lastly, the unit participated in the completion of technical activity reports and in programme planning.

Objective 2 : Mission of support and evaluation by external assessors.

Three missions were carried out in 1993:

- Cornie Huizenga, consultant, organised a twenty-day workshop in April, based on ZOPP method studying MADERA's structure and operating. This session led to MADERA adjusting its working methods, rationalising a certain number of procedures and adapting its organisation to the programme's new requirements.
- the forestry programme was visited, as in preceding years, by Jean Braud, a French forestry expert who carried out two missions in April and October.
- Valentin Beauval, consultant with IRAM (Institute for Research and Application of Developmental Methods) provided assistance in June in the spheres of training and extension work.

SUPPORT

- E.U. (European Union)
- the French government

ORIENTATIONS FOR 1994

- to complement the system of collection and processing of technical activity indicators by means of new computer data bases for the agricultural and forestry sectors.
- to carry out profitability studies and economic analyses in nurseries, gabion construction, canal repair and mechanisation.
- to continue collection and processing of technical field data.
- To carry out an overall programme evaluation through an external consultant.

PROGRAMME ADMINISTRATION

BOARD OF TRUSTES AND THE PARIS OFFICE

As in any association, the general management of the programme is the responsibility of the Board of Trustees who decide on the programme's general directions. The headquarters of the organisation are in Paris. MADERA is an association governed by French law, however, the Board of Trustees are a reflection of the association's desire to have a European vocation. Several committees of support for Afghanistan are part of the Board of Trustees of MADERA (Dutch Committee for Afghanistan, Norwegian Committee for Afghanistan) with individuals showing a marked interest in Afghanistan. The Chairman of MADERA, until 1992, was the mathematician Laurent Schwartz, also Chairman of the Bureau International d'Afghanistan from which MADERA originated. For personal reasons, he was replaced in October 1992 by Michel Verron, former UNESCO expert in Kabul.

The Board of Trustees met three times in 1993. In October 1993, the meeting took place in Peshawar in the presence of certain members of the Board of Trustees including the Chairman and General Delegate. The Director of the programme is present at all meetings to give an account of activities. MADERA has a General Delegate in Paris responsible for contact between the Peshawar office and the members of the Board of Trustees, representing the association to donors in Europe and carrying out certain tasks such as relations with banking institutions, recruitment of expatriates and administrative management of expatriate personnel.

BOARD OF TRUSTEES OF MADERA

Honorary Chairman	:	Laurent SCHWARTZ
Chairman	:	Michel VERRON
Vice Chairman	:	Ulrich FISHER
Treasurer	:	Jean-François CAUTAIN
General Secretary	:	Elisabeth KIND (Aide Médicale Internationale - AMI)
Others members of the Board	:	Jean BRAUD Karin HAUGEN - Norwegian Afghan Committee Anne-Marie SPIESER - Solidarité Afghanistan Belgique Alain LABROUSSE

THE PESHAWAR OFFICE

This office co-ordinates programme activities in Afghanistan. Since mid-May 1991, it has ensured the basic essentials in financial management and accountancy as well as drafting technical activity and financial reports for donors and the Board of Trustees of MADERA.

In 1993, numerous proposals for programmes, intermediary reports and activity reports were completed.

Programme co-ordination is the responsibility of the programme director, assisted by 2 expatriate technical directors and 1 financial director, aided by 2 accountants who are also expatriates. They are assisted by local personnel in programme administration, including 1 administrative director, 5 regional co-ordinators (Kunar valley, Pech and Weygal valley, province of Laghman and Nangarhar - rehabilitation), who are responsible for the 42 agricultural, veterinary and forestry centres located in Afghanistan, and 5 sectoral co-ordinators (forest, livestock, training, hydraulics and agriculture).

A weekly intersectorial meeting for those principally responsible is held in Peshawar, to answer current programme management questions.

As the result of a discussion workshop held in April 1993 at Peshawar, an organisation chart and procedures were developed. An independent purchasing-logistics department was opened in the Peshawar office. Decisions concerning planning are now taken during a periodic consultation meeting.

The Peshawar office is also responsible for the management of personnel, programme logistics, the purchasing department, the motor pool, the central store and secretarial and interpreting services.

The Peshawar office provides co-ordination with other NGOs by participating mainly in sectoral or geographic meetings of ACBAR (Agency Coordinating Body for Afghan Relief), with the office of the European Union and the various United Nations agencies.

Activities in the office at Jalalabad, opened in 1992, have greatly developed. The objective remains the transferring of a major part of the administrative services now in Peshawar, as soon as conditions allow this.

Out of the 360 local employees in the organisation, 50 work in Pakistan, the others being divided between Kunar, Laghman, Nangarhar and Hazarajat.

SUPPORT

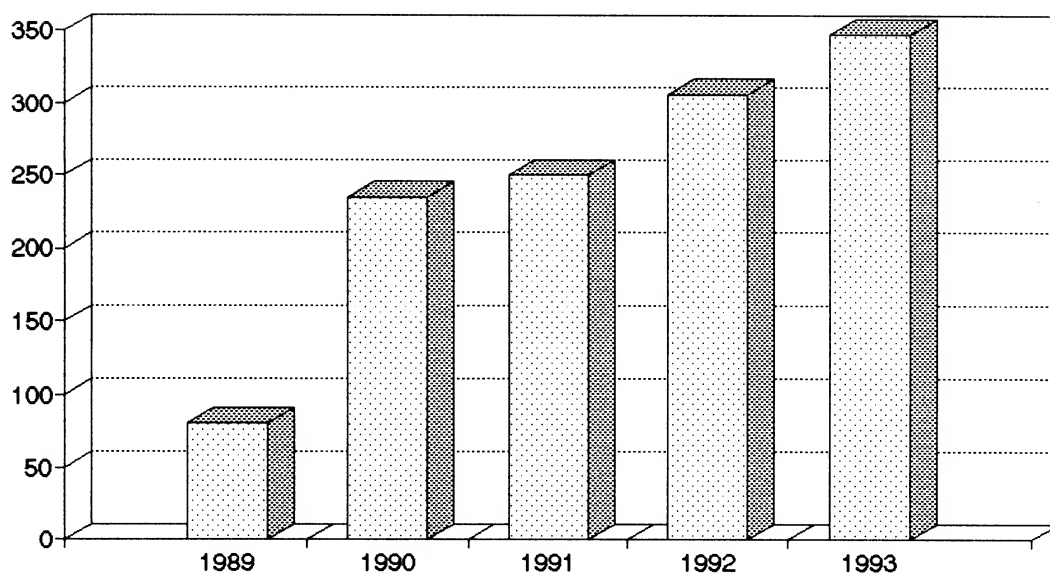
- E.U. (European Union)
- MADERA 's own funds

ORIENTATIONS FOR 1994

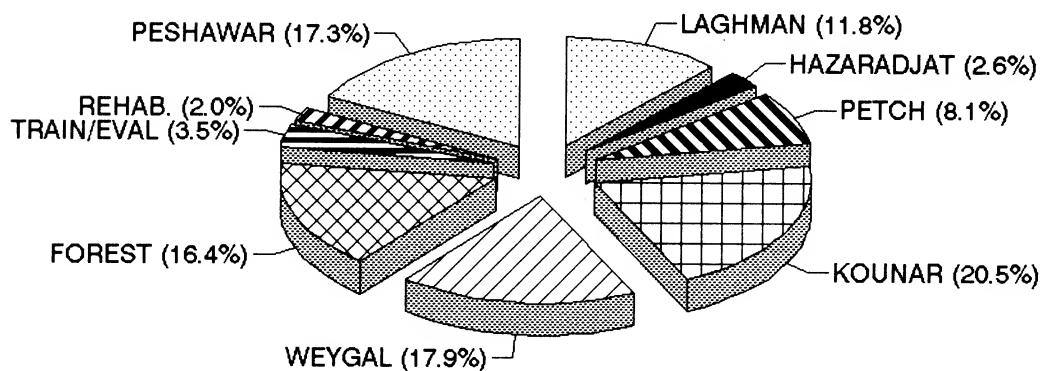
- to accelerate the progressive transfer of responsibilities to the programme's Afghan personnel through increased training. The employment of 3 voluntary National Servicemen, made available to MADERA by the French Ministry of Foreign Affairs in 1994, should contribute to this large scale training effort
- to transfer the major part of administrative services now in Peshawar to Afghanistan (Jalalabad)
- to accelerate computerisation of the financial department (for salaries in particular).

PERSONNEL OF THE PROGRAMME

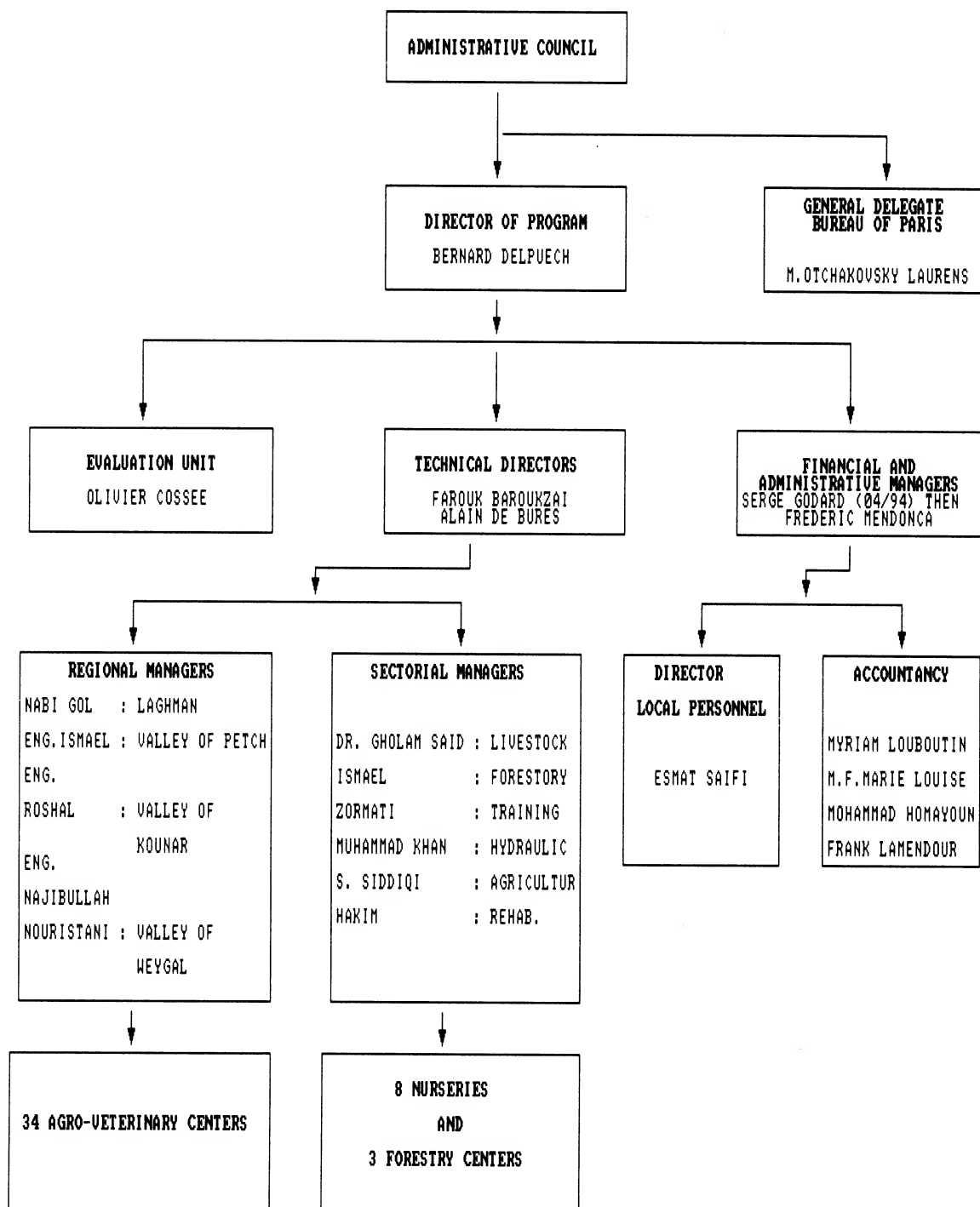
**Evolution of MADERA personnel
from 1989 to 1993**



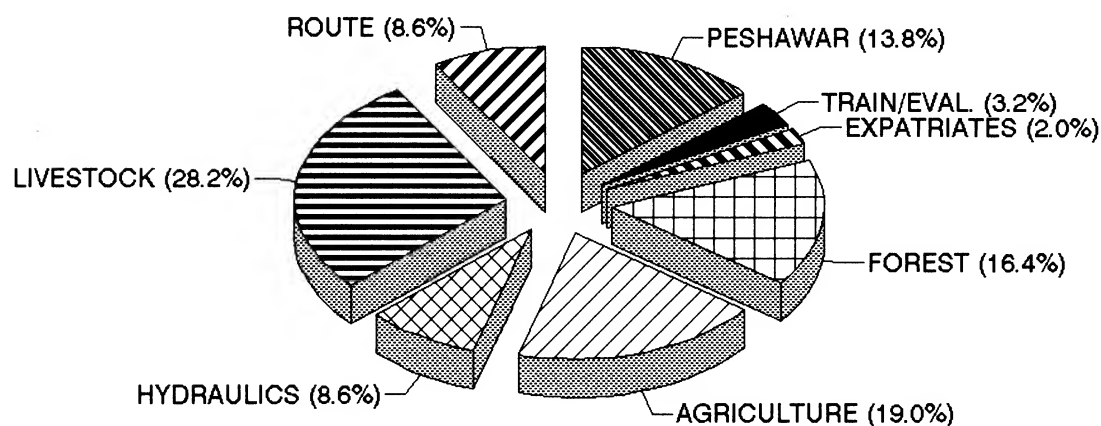
**Number MADERA personnel per region in
1993 (number of those who are salaried)**



MADERA ORGANIZATION CHART 1993



**Distribution of MADERA Personnel
per sector in 1993**



Breakdown of personnel per professional category

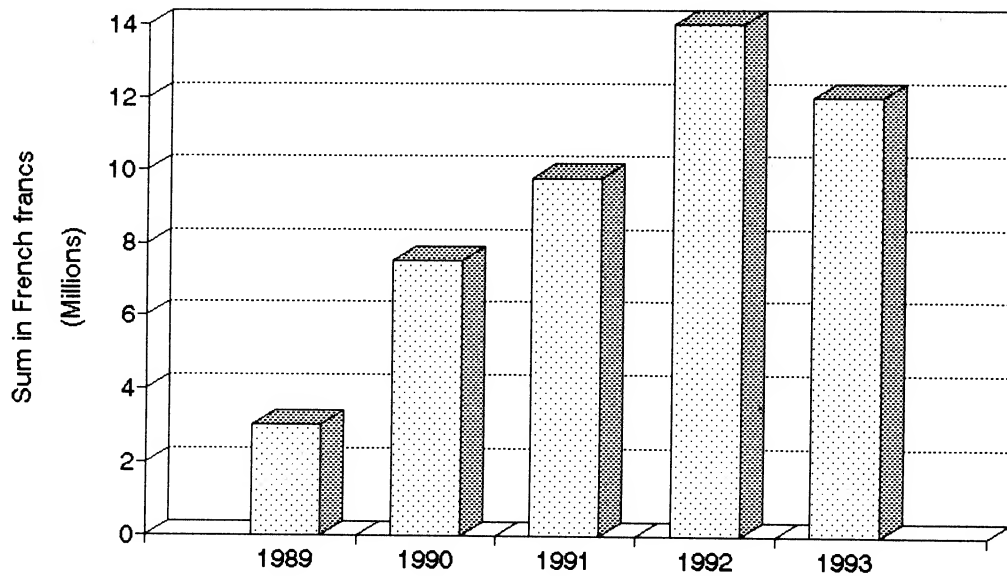
Personnel at Peshawar		Personnel In Afghanistan	
EXPATRIATES	7	VETERINARY DOCTO	7
ADMINISTRATION	12	AGRONOMIC ENGINE	13
EVALUATION	4	HYDRAULICS ENGINE	9
TRAINING	4	FORESTRY ENGINEER	8
TRANSLATORS	3	TECHNICIANS (agro.,	97
SERVICE	35	LABOURERS	52
		SERVICE PERSONNEL	78
		ADMINISTRATION	18
SUBTOTAL	65	SUBTOTAL	282

Breakdown of personnel per nationality

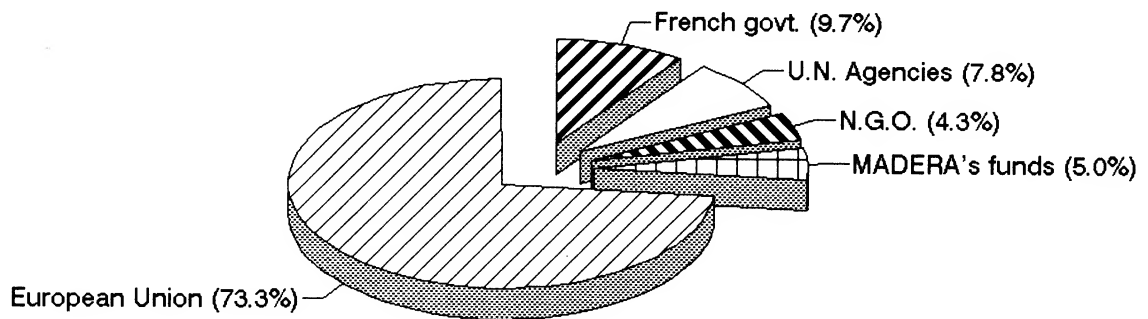
FRENCH	7
PAKISTANIS	5
AFGHANS	335
TOTAL :	347

BUDGET

**Evolution of MADERA's budgets
from 1989 to 1993**



**Origin of MADERA's funds
per financer in 1993**



MADERA's total budget : 12 millions FF (2.02 million dollars)